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COMPARATIVE EDUCATION

H. W. FOGHT · W. F. RUSSELL
A. H. HOPE · I. L. KANDEL
PETER SANDIFORD

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COMPARATIVE EDUCATION

STUDIES OF THE EDUCATIONAL SYSTEMS OF SIX MODERN NATIONS

BY

H. W. FOGHT A. H. HOPE
I. L. KANDEL W. RUSSELL
PETER SANDIFORD

EDITED BY
PETER SANDIFORD

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INTRODUCTION

SINCE the outbreak of the war the attention of the world has been turned to a general survey of its social, economic, and political institutions. Such a stocktaking has been undertaken mainly with the view of eradicating the defects in these institutions that could lead to such a cataclysm, but also to build anew on sounder and surer foundations. The reconstruction that is to follow the war must be based on a more careful scrutiny of what the world has already accomplished, a more penetrating analysis of the interplay of cause and effect in our social organisations, and a close study of the lessons of the war for the re-establishment of the world.

Of the social institutions educational systems have for the first time received attention commensurate with their importance, for education is among the strongest influences which make a man what he is, and in education more than in any other factor lies the hope of the world. Especially have the systems of England and Germany been compared. The two differ in almost every respect. German education is systematised, intelligible, and admittedly efficient. English education is apparently chaotic yet also effective in its own way. Which is the better system? By what educational machinery has Germany instilled in her people the blind faith in a cause that has aligned the world against her? By what system has England trained her young men for leadership?

Similar queries arise when any of the belligerent countries is considered. How has France schooled her sons to such courage and devotion as have astounded the world? How does the United States solve the question of democratic education?

From comparisons such as these there inevitably must follow the conclusion that an educational system is something more than a mere organisation for imparting knowledge to the rising generation. More adequately than any other phase of national life an educational system expresses the innermost beliefs, ideals, and aspirations of a people. It is essential, therefore, in a study which seeks to compare the educational practices of a number of countries to analyse and understand the fundamental

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philosophies of which these systems are the expression, and to discover the underlying aims and hopes if we desire to reach an explanation of their several plans of organisation.

Educational systems differ from each other by reason of a number of factors—historical, geographical, ethnological, political, and economic. But more surely and fixedly than these the theory of the state and society held by a people determines the character of its educational institutions. The present volume aims to analyse for the leading countries of the world some of these factors and to present the consequent differentiation of educational systems. The details of educational practice may change from time to time, but the basic principles which are here considered change so slowly that an inquiry into them at this time should offer a contribution of permanent value.

An attempt is made to explain educational principles and tendencies in terms of social, economic, and political antecedents of each country under consideration. Each country has been selected with a definite end in view: Germany as an example of centralisation under absolute control, France as an instance of centralisation under popular control, England as illustrating in her system the principles of individualism and initiative, the United States as embodying the hopes of a democracy, Canada as a country building up an educational system under pioneering conditions of development, and Denmark for the conscious adaptation of an educational system to the needs of an agricultural community. It is not intended to uphold any one of these systems for imitation—an educational system is too vital a part of the social organism to be transplanted or grafted—but it is hoped that by throwing into emphasis certain principles the student and administrator may be enabled to obtain a wider outlook and a firmer grasp of the educational problems of the day on the foundation of which the educational reconstruction that must follow the war may be built.

A word or two as to the title. Comparative education is a phrase recently invented in the United States to cover such studies as are contained in this volume. But the field itself is an old one. The contributors are simply following in the footsteps of Henry Barnard, Horace Mann, Sir James Kay Shuttleworth, Matthew Arnold, and, more recently, Michael E. Sadler. If the writers of the various articles could feel that their efforts approach the standards of excellence set by these pioneering investigators they would be amply repaid for their labours.

THE CONTRIBUTORS

Harold W. Foght, B.Sc., M.A., Ph.D., Specialist in Rural Education, United States Bureau of Education. Author of *Rural Denmark and its Schools, The Danish Folk High Schools, Educational System of Rural Denmark, Danish Elementary Rural Schools, The Rural School System of Minnesota, The School System of Ontario*, etc.

Arthur H. Hope, M.A., Headmaster of the Roan School for Boys, Greenwich, England. Author (with Mr. Norwood) of *Higher Education of Boys in England, Report on an Inquiry into the Method of Teaching the Mother-Tongue in France*, etc.

Isaac L. Kandel, M.A., Ph.D., Associate in the Administration of Education, Teachers' College, Columbia University; and Specialist in Education, Carnegie Foundation for the Advancement of Teaching. Author of *The Training of Elementary Teachers in Germany, Elementary Education in England*, etc.

William F. Russell, B.A., Ph.D., Dean of the College of Education, State University of Iowa. Author of *The Early Teaching of History in New York and Massachusetts, Economy in Secondary Education*, etc.

Peter Sandiford, M.Sc., M.A., Ph.D., Associate Professor of Education, University of Toronto, Canada. Author of *The Training of Teachers in England and Wales, The Mental and Physical Life of School Children*, etc.

CONTENTS

PAGE
INTRODUCTION . . . . THE EDITOR v

CHAPTER I—UNITED STATES. BY WM. F. RUSSELL

I. DIVERSITY OF EDUCATION 1
II. DEVELOPMENT OF EDUCATION 6
III. ORGANISATION OF EDUCATION 10
IV. CONTROL OF EDUCATION 11
V. ELEMENTARY EDUCATION 24
VI. THE TRAINING OF ELEMENTARY-SCHOOL TEACHERS . . 52
VII. SECONDARY EDUCATION 58
VIII. THE TRAINING OF SECONDARY-SCHOOL TEACHERS . . 73
IX. TENDENCIES TOWARD THE EQUALISATION OF EDUCATIONAL OPPORTUNITY 74
X. CONCLUSION 103
XI. BIBLIOGRAPHY 104

CHAPTER II—GERMANY. BY I. L. KANDEL

I. INTRODUCTION 107
II. THE STATE IN RELATION TO EDUCATION 113
III. ELEMENTARY EDUCATION 121
IV. THE TRAINING AND POSITION OF ELEMENTARY TEACHERS 130
V. INTERMEDIATE EDUCATION 140
VI. SECONDARY EDUCATION 142
VII. TRAINING AND STATUS OF SECONDARY TEACHERS . . 155
VIII. SECONDARY EDUCATION FOR GIRLS 159
IX. VOCATIONAL SCHOOLS 163
X. CONTINUATION SCHOOLS 165
XI. INDUSTRIAL EDUCATION 170
XII. COMMERCIAL EDUCATION 173
XIII. TEACHERS OF VOCATIONAL SUBJECTS 175
XIV. VOCATIONAL EDUCATION FOR GIRLS 178
XV. BIBLIOGRAPHY 180

CHAPTER III—ENGLAND. BY THE EDITOR

I. INTRODUCTION 183
II. CENTRAL CONTROL OF EDUCATION 188
III. THE LOCAL EDUCATION AUTHORITIES 196
IV. ELEMENTARY EDUCATION 202
V. TRAINING OF ELEMENTARY TEACHERS 225
VI. WELFARE WORK 235

ENGLAND—*continued*

PAGE
VII. Continuation Schools 248
VIII. Secondary Education 254
IX. Training of Teachers for Secondary Schools . . 276
X. The Teachers' Register 279
XI. Conclusion 282
XII. Recent Educational Reform 282
XIII. Bibliography 284

CHAPTER IV—FRANCE. By Arthur H. Hope

I. General Introduction 285
II. Secondary Education of Boys 289
III. University Education 307
IV. Primary Education 313
V. Higher Primary Education 324
VI. The Primary Normal Schools 328
VII. Secondary Education of Girls 330
VIII. Technical and Commercial Schools 333
IX. Continued Education 336
X. Conclusion 341
XI. Bibliography 342

CHAPTER V—CANADA. By The Editor

I. Introduction 343
II. Central and Local Control 348
III. Elementary Education 357
IV. The Elementary Teaching Staff 386
V. Secondary Education 402
VI. Vocational Education 417
VII. Miscellany and Conclusion 430
VIII. Bibliography 436

CHAPTER VI—DENMARK. By Harold W. Foght

I. Introduction 439
II. Historical Development 439
III. The System of Education 443
IV. Rural Education and Rural Life 450
V. The Folk High Schools 459
VI. Typical Folk High Schools 472
VII. Other Schools 483
VIII. Bibliography 494
Index 496

CHAPTER I

EDUCATION IN THE UNITED STATES

I. DIVERSITY OF EDUCATION

THE United States in 1910, not including outlying possessions, had a population of 91,972,266 persons living on an area of 3,026,789 square miles. For administrative purposes the country is divided into forty-eight *states*, ranging in size from Texas with 265,896 square miles to 1067 in Rhode Island; and ranging in population from New York with 9,113,614 inhabitants to 81,875 in Nevada. These states are further divided into *counties* (in Louisiana the *parish* is the equivalent of the county). These counties vary greatly in size. In Arizona the average county contains 8139 square miles, in Rhode Island but 250. In sixteen states the average area of a county exceeds the total area of the state of Rhode Island. In general the counties contain from 500 to 1000 square miles. The counties, in turn, are further subdivided. In the western states the unit is the *township*, a regular area of thirty-six square miles. In New England we find the *town* an irregular area of about the same size; in Louisiana the *police jury ward*. These in turn, particularly for school purposes, are further divided into *districts*, small areas of four or five square miles. There is no uniformity either in the form of organisation or in the relative power of these governmental units. Conditions vary from state to state and often from unit to unit within the state.

The most striking characteristic of education in the United States is its great diversity. No comprehensive control is centred in the national government. The state governments in many cases have no adequate direction of their schools. Even within the smaller administrative units there is often wide variation, schools varying from district to district within the same county. There is no one state whose educational system is typical of the system of the others. No three states could fulfil this function. A complete account of education in this country would necessitate, therefore, an encyclopædic work, considering almost every school in detail. Any account short of this will be unsatisfactory.

The account which follows selects but a few of the more important features of education in the United States, choosing to deal in greater detail and with ample illustrative material with but a portion of the ground, rather than to give a series of broad generalisations without supporting data. In dealing with so vast a subject in so brief a space much has been omitted.

Causes of this Diversity.—Were the United States a static nation following a well-conceived plan such chaos in its educational system would be incomprehensible. But this is not the case. No single mind planned the United States. Its ideas, its government, its laws, and its schools are the product of slow evolution, the result of the gradual amalgamation of many forces. The United States throughout its history has been changing. It is still in the process of change; and it is only by viewing its education in the light of these changes that its lack of unity can be reconciled with progress and efficiency. Three of these deserve our consideration. Colonial America was composed of many groups of peoples, differing as to race, origin, tradition, ideas, ideals, religion, and consequently as to education. Immigration has served to maintain this condition. Out of this heterogeneous mass has been gradually growing a unified American citizenship, single of purpose and like-minded in aims and ideals. Thirteen different colonies, themselves composed of many differing settlements, combined to free themselves from England, and while turning over many powers to the central government, they were jealous of their own rights and privileges. From extreme decentralisation in government, the tendency of the past two centuries has been toward increasingly greater trust in the central authorities. The third change, destined to be powerful in its effect upon our education, is the change in the theory of the state. Each of these needs consideration if we would understand this system of schools.

Diversity due to Population.—During the seventeenth century the English were the main contributors to the population of Colonial North America, with the Scotch, Irish, Germans, Dutch, Huguenots, and Scandinavians following in order of importance. Massachusetts and Virginia were of almost pure English stock, while the people of the other colonies, a mixture[1] from the start, later became amalgamated with the English. Colonial migration had one distinctive feature; it was largely

---

[1] Nine men of prominence in early New York represented as many nationalities, Schuyler—Dutch, Hamilton—West India English, Jay—French, Livingston—Scotch, Clinton—Irish, Morris—Welsh, Hoffman—Swedish, Herkimer—German, Steuben—Prussian. From J. R. Common's *Races and Immigrants in America*, p. 29.

Teutonic in blood and Protestant in religion, and by 1750 many of the earlier differences were about to be wiped out through inter-colonial communication and the common settling of the wilder districts away from the sea coast. Two great tides of immigration served to postpone the assimilation. Into the southern states New England ship captains, attracted by large prices, were pouring cargoes of African negroes for slave labour. Economic and climatic conditions restricted this immigration to the one section; and as a result two-fifths of the population of the southern states to-day is composed of negroes, near descendants of African savages, a domesticated but backward people. During the nineteenth century over twenty million immigrants came to our shores. In the first half the drift was largely from northern Europe, Germany, Ireland, and England contributing roughly five, four, and three millions each. During the last four decades the drift has been from the south, Italy, Austria-Hungary, and Russia leading in the order named. The assimilation of this mass of new arrivals has been no small task. In each decade from 1850 to the present there have been from 55 to 100 immigrants for each thousand of native population.

The variations in our educational system can, in part, be traced to this complexity of national origin. Those first on the ground developed their own institutions. Those who followed presented each his own little contribution and were modified in turn. But the fact that our language is English, our religion largely Protestant, and our government and law the product of English custom shows that those first on the ground held the balance of power. This is well shown in the development of our education.

Diversity due to a Change toward Centralisation in Government.— The settlements made in Colonial North America by the varied bands of adventurers that crossed the Atlantic were indeed separate. Coming for religious and political freedom, coming from different countries and different sections within countries, they developed their own institutions and their own local loyalty. In Massachusetts, where the people settled in small communities, the *town* assumed most of the duties of government; while in Virginia, where settlements were sparse and along rivers, a larger unit, the borough or *county*, assumed these duties. There were variations from town to town, from county to county, and greater variations from colony to colony. Communication was difficult. Inter-colonial jealousy was no small matter. Customs duties were often imposed upon goods coming from one colony into another.

When these colonies combined to throw off the financial and governmental control of England, it was only with the loosest sort of central organisation; and it took a decade of grievous failure after the Revolutionary War to convince the states of the need of greater transfer of power to the central government. With the adoption of the constitution, which came only after a bitter fight, many of the states believing that too much power had been ceded, relatively few powers were entrusted to the national government. The exact relation of the states to this government, and of the local units within the state to the state itself, has long been a matter of controversy. Virginia and Kentucky early threatened to declare void a national law within their boundaries. New England threatened to secede from the Union in 1815. South Carolina was dissuaded from nullifying the tariff of 1828 only by the strongest sort of pressure; while the great Civil War was fought out on this question. In general, the government assumes power over inter-state affairs, while the state has power over affairs within its boundaries. The southern states believe more strongly in the sovereignty of the local unit. In Tennessee to-day certain sections will refuse to obey a state law, and little is done to compel them.

The tendency of the past century has been away from the supreme sovereignty of the local unit to that of the state, and from that of the state to that of the nation. It is only by a realisation of this condition in the early history of the United States that one can account for the failure of the nation to provide for education as a unit, and for the failure of the states in many instances to control education within their boundaries.

This has had both a good and bad effect on education. It has allowed poor districts to remain poor, ignorant districts to remain ignorant. It has prevented American boys and girls from having equal opportunities. But it has allowed people to do as they please in educational work, it has permitted progressive communities with wise leadership to make great progress, and it has provided a multitude of good and bad schools that thinking American schoolmen to-day may imitate or avoid. It has enabled American education better to keep pace with change.

Diversity due to a Change in the Theory of the State.—Early colonists brought with them the prevailing European notion that governmental power and the direction of affairs was the just prerogative of the upper classes; and that the efficient government was the one with an inert, unthinking mass of people guided by an alert, educated, benevolent autocracy. This is well shown by the early limitations put upon the suffrage. In the seventeenth century hardly one adult male in four had the suffrage in Massachusetts. By 1790, when the states were setting up their constitutions, probably not one adult male in five had the right to vote. In North Carolina, for instance, to vote for a representative in the national government a man had to be a tax payer; to *sit* as a representative he was compelled to own 100 acres of land; to vote for a senator he must own 50 acres of land; to *sit* as a senator, 300 acres must be owned. A governor had to own £1000 in real property, thus restricting this office to wealthy land owners. Vermont alone, not yet admitted to the Union, granted full suffrage to all adult males.[1] To-day the suffrage is widely extended. Women vote on all matters in many of the states, on school matters in many others.

The tendency of the past century has been toward the conception of a true democracy, where all men if not born equal shall at least have equal opportunities and where the salvation of the government rests upon the notion that all men shall vote, that all men shall have a right to an education, that the leaders shall be the ablest regardless of birth or wealth, and that all people shall meet the situations of life, not because certain action is compelled from above, but on the plane of reason. This change in the theory of the state, shown so clearly by the extension of suffrage, can be illustrated in countless ways. It is a slow change. It is still taking place. The aristocratic conceptions of education in certain sections can only be understood with this in mind, while the gradual growth of equality of opportunity in education is but one of the manifestations of this change.

As we study education in the United States, therefore, we see the intermingling and interaction of these three changes. We see varied starts given to varied educational ideas by varied peoples; we see progress in some sections, backwardness in others; we see aristocratic sections like the south withholding popular education; we see democratic sections like the west and the manufacturing centres fostering it in every way. We see diversity fostered by differing peoples, by local units jealous of the state, by the states jealous of the national government. But through it all we see slowly evolving centralised education of a unified people for life in a democracy.

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[1] West, *American History and Government*, p. 232.

II. DEVELOPMENT OF EDUCATION

It is to England in a large measure that America owes its educational traditions. At the time of early emigration to this country, two distinct types of education had there been developed, that of the classes at the great "public schools" and universities at private expense and that of the masses through the series of Acts, culminating in 1601, known as the Poor Laws. It had already been determined that all youths not of independent means should be apprenticed, that the master be compelled to educate his apprentices, that the overseers of the poor be compelled to provide the means and material for such education, that funds for this purpose could be raised by assessment against persons of means through the Compulsory Rate Bill, and that if this burden were excessive in one section it could be equalised by distributing the tax over a wider area.

The colonists in Virginia brought this conception with them, and remaining more like the mother country than the other American colonies, more nearly transplanted this system intact. Thus early education in Virginia dealt with two classes, the education of the privileged being provided for by the founding of William and Mary College and education of the poor by the provision for apprenticeship coupled with a meagre sort of schooling. In general, Virginia was indifferent to popular education, and exceptions to this were due to the initiative of small localities rather than to the interest in education of the colony as a whole. Education was a matter for the settlement of the individual, not the state. And in all the other colonies where small localities were English in thought and Church of England in faith such education prevailed.

The decided difference shown in the development of education in Massachusetts was due not so much to a difference in educational tradition as to the extreme form of the Protestant faith which dominated their religious life. In Virginia the church demanded trained leaders, hence William and Mary College. In Massachusetts Calvinism demanded trained leaders, hence Harvard College (1638). But Massachusetts stepped forward in the education of the masses. By 1642 all of the English apprenticeship laws, except the one providing that apprenticeship fees be taken from the common fund, were transplanted to Massachusetts. In addition they provided that each child should be able to "read and understand the principles of religion and the capital laws" of the country. Calvinism demanded that each person should be able to read the Bible. Salvation depended upon that. Thus where a colony was largely composed of Calvinists education for all became general and consequently more and more a matter of state duty. In Massachusetts, step by step, education in reading and writing at least was provided for all at public expense; and while the local "towns" had to take the initiative, general authority was used to bring backward or apathetic communities into line.

Wherever Calvinism was dominant, whether among the English in New England, the Dutch in New York, the Scotch-Irish in almost all the colonies, the Quakers in New Jersey and Pennsylvania, or other sects in many other colonies, education for all the people was demanded. If all the people of a colony were of one denomination within Calvinism education became more nearly a public matter. If not, it was rather a matter of church business, the local unit playing the leading part. Nor was the education of leaders neglected, grammar schools, academies, and colleges being founded and supported that there might be no lack of educated ministers of the gospel.

Maryland proposed, but did not accomplish, the highest type of early education—a general system of education free for all throughout the colony and supported by general colonial taxation.

"The following principles not previously explicit in English practice were embodied in actual systems prior to the Revolution (1775): (1) the right of a state to require the education of all its citizens (Massachusetts, 1642); (2) the right of a state to compel local civil divisions to establish schools (Massachusetts, 1647); the right of a local civil division to support schools of general education by a tax levy on all rateable persons (Massachusetts practice, practically universal prior to 1750); and (4) the right of a state to appropriate state funds to a general system of schools (Maryland, 1694)." [1]

Varying types of education were therefore developed in the American colonies prior to the Revolution. Where the Church of England held sway we find education provided for the leaders, with but little provision for the poor. Where Calvinism was the leading faith we find education for leaders and education for the poor. Where a colony was predominantly of one sect, as in Massachusetts, we find more educational power transferred to the general government, but where the colony was composed of many differing groups, as was the general case, we find the local unit—the parish, the district, the town, the county—the authority in educational matters. Education varied, therefore, as the people in scattered isolated districts varied; and as settlers moved from these districts into the west they carried these ideas with them.

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[1] Monroe, *Cyclopedia of Education*, ii. p. 118.

At the beginning of the nineteenth century education was at a low ebb in the United States. Colleges, grammar schools, and academies had been developed for the training of leaders. Sporadic attempts had been made to effect state school systems, such as Jefferson's plan for universal education in Virginia. But no approach to such a plan had been worked out. Education varied as to the locality involved. The local unit was supreme. The federal constitution made no mention of education, leaving that matter to the state. During the period 1776-1800 all of the states, except Connecticut and Rhode Island, adopted new constitutions, while Vermont, Kentucky, and Tennessee were admitted as new states in the same period. Of the sixteen states admitted before 1800, half made no reference to education in their constitutions, while the others were not particularly definite about it. In short, the national government passed educational power on; while the state, afraid of the local unit, further transferred the power. This allowed the local unit to do practically as it pleased.

The fear of providing for education in the states already formed did not deter the national government from providing for education in the rapidly filling territory in the north-west, the common property of all. Hence in the "Ordinance of 1787" one thirty-sixth of the land was set aside for school purposes, which fostered education in the states of Michigan, Ohio, Illinois, and Indiana, which were shortly organised from that section of country.

During the first quarter of the nineteenth century little progress was made. Where the prosperous and aristocratic were in control, educational opportunities were provided for the rich at private expense, philanthropic efforts made some provision for paupers, while the great mass received but little attention. The Committee on Education of the Massachusetts legislature in 1825 found pitiable conditions. No town claimed less than eleven hours of steady work for young persons (6-17 years of age). "Seekunk reported that its child operatives work twelve hours; 'Some may get eight weeks Schoolg.' . . . Bellingham reports . . . 'Work twelve hours per day. No oppy for school except by employg substitutes.' . . . Boston said concisely, 'No Schoolg.' . . . Fall

River . . . said, 'Work all day.'" The *Mechanics Free Press* in Philadelphia, speaking of the children in the factories, said, "We have known many instances where parents who are capable of giving their children a trifling education one at a time have been deprived of that opportunity by their employers' threats that if they did take one child from their employ, a short time, for school, such family must leave employment . . . and we have even known such threats to be put into execution." Working hours and labour conditions were such that an educated citizenship was practically impossible.

Class distinctions were breaking down, however, and the power was shortly to pass from those who believed in aristocratic government with the education of a few leaders to those whose belief was centred in democratic government with its most necessary corollary, the education of all at public expense. The ministry gave way to the law as the leading profession. Harvard College ceased listing its students according to the social standing of their parents. Migration westward to the new and unsettled portions of the country left class lines behind; while the rise of industry, with the consequent movement of labour from rural to urban centres, brought great masses of working-men together, shortly to be organised so that the wishes of the common people might be heard.

Between 1825 and 1850 a wave of interest in education for all the people swept over the country. Two conditions were responsible for this—the breakdown of class lines in the new west and the rise to power of organised labour. People from all sections of the country had moved into the new lands in the west. There were no conveniences. It was a struggle from the start, and accidents of birth or training helped but little. Men were equal, democracy was fostered, and education for all or education for none was the demand. While the new lands were being settled, another powerful change was being made. Labour was coming into the city to work in factories, and the unorganised men, women, and children unaccustomed to new surroundings and under strange conditions were unable to cope with the manufacturer suddenly grown powerful. As a result, hours of labour lasted from sunrise until late at night, women and children worked as long as adult males, and general conditions were as intolerable as when Sir Robert Peel started his work in England years before. To remedy these consequences of the Industrial Revolution the working-men banded together into labour unions, and so powerful did these organisations become that they practically forced, along with other reforms, public universal education on the states in which they lived. The reports of committees of these unions are well worth extended study, not only in reference to the beginnings of public education in the United States, but with reference to the change in the theory of the state.

The west, being democratic, fostered public schools. The east, having organised labour, did the same. In the south cotton was the principal crop. Cotton demanded work of a low grade, chiefly slave labour. Slave labour excluded the small farmer, fostered great plantations, and wealthy people who were large land-holders covered the land. There were almost no cities. There were no manufactures. There was an aristocracy of rich people who could afford to educate their children at private expense excluding the children of the negroes and the "poor whites." Having, therefore, neither democracy nor organised labour the south lagged behind.

At the same time higher education was developing. The government had granted land, the proceeds from the sale of which had gone to found universities supported by the state and open without charge to students of that state. Normal schools had been founded for the training of teachers, and because there were few schools beyond elementary schools, admitted elementary school graduates. The universities could not do this. As a consequence, the public high school, modelled after the old grammar schools and academies, was introduced to fill the gap.

Thus the system of education in the United States was produced. Poor people were originally trained in apprentice or pauper schools; rich people in academies, colleges, and universities. The poor people's school is now the elementary school, the first step in education designed for every citizen of the United States. The university, supported by the state, is the final step in the training of leaders. Between the two is the public high school. Each is free, open equally to all American children; and while there were variations in the order of development, every state has such a system supported at public expense.

III. ORGANIZATION OF EDUCATION

Public education in the United States divides itself naturally into four groups—the elementary school, the high school, the college, and the professional school. Although they were originated for different purposes, to-day they are built one upon the other, the lower school preparing for the higher. The educational scheme may be illustrated by the following diagram:

Normal Age.	Grade.	School.		
25–26	University	Medical School	Law School	Ph.D. Degree M.A. Degree
24–25				
23–24				
22–23				
21–22	Senior	College		
20–21	Junior			
19–20	Sophomore			Normal School
18–19	Freshman			
17–18	4th year High School	High School	Some Normal School	
16–17	3rd year High School			
15–16	2nd year High School			
14–15	1st year High School			
13–14	Grade 8	Elementary School		
12–13	Grade 7			
11–12	Grade 6			
10–11	Grade 5			
9–10	Grade 4			
8– 9	Grade 3			
7– 8	Grade 2			
6– 7	Grade 1			

In these schools 21,632,514 students were enrolled in 1913. They were distributed as shown in Table I., p. 12.

IV. CONTROL OF EDUCATION

State Control.—Education in the United States to-day can accurately be said to be a state function. All of the states to a greater or less degree recognise this and all of them exercise some control over the local units. States require each local unit to provide schools and to institute improvements of various sorts. Funds are appropriated to help local units to make necessary provision, and by the wise administration of these state grants to local authorities much power has been put in the hands of central authorities. Nearly all the states have *Boards of Education*, with a *State Superintendent of Public Instruction* as their executive officer, in charge of the educational activities of the state.[1] There are four

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[1] The median salary of this officer was $3000 in 1913–14. The highest salaries are paid by New Jersey and New York, $10,000. Massachusetts may pay as high as $10,000. The salaries as paid in the various states are as follows:

Salary.	No. of States.	Salary.	No. of States.
$10,000	2	$3,500	2
7,500	1	3,000	15
6,500	1	2,500	5
5,000	6	2,000	4
4,500	1	1,900	1
4,000	8	1,800	1
3,600	1		

—U.S. Bureau of Education, 1914, *Bul. No.* 16, p. 298.

common types of these boards. There is the *ex-officio* body as is found in Colorado, composed of state officers, such as the state superintendent of public education, the secretary of state, and the state treasurer, who hold office by virtue of official position. There is the board, found in Indiana and Washington, composed of such educational officers of the state as the president of the state university, the presidents of the normal schools, etc. There is the board, found in Arkansas, California, New York, and Tennessee, which is appointed by the governor of the state. There is the board which is elected, by the people as in Michigan, or by

TABLE I[1]

School and College Enrolment in the United States in 1913

Grade.	Public schools.	Private schools.	Total.
Elementary (kindergarten, primary, grammar)	17,474,269	1,590,518	19,064,787
Secondary (high schools and academies)	1,134,771	148,238	1,283,009
Secondary (preparatory departments of higher institutions)	21,161	62,652	83,813
Universities and colleges	79,177	122,052	201,229
Professional schools	11,438	54,149	65,587
Normal schools	87,172	7,283	94,455
Total for above	18,807,988	1,984,892	20,792,880
City evening schools	425,000	—	425,000
Business schools	—	160,557	160,557
Reform schools	50,812	—	50,812
Schools for deaf	13,002	516	13,518
Schools for blind	4,973	—	4,973
Schools for feeble-minded	10,209	589	10,798
Government Indian schools	34,413	—	34,413
Schools in Alaska (government supported)	3,563	—	3,563
Schools in Alaska (municipally supported) (estimated)	3,000	—	3,000
Orphan asylums and benevolent institutions (estimated)	—	20,000	20,000
Private kindergartens (individually reported)	—	53,000	53,000
Miscellaneous (art, music, etc.) (estimated)	—	60,000	60,000
Total for special schools	544,972	294,662	839,634
Total for all schools in United States	19,352,960	2,279,554	21,632,514

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[1] U.S. Commissioner of Education, *Annual Report*, 1914, vol. ii. p. vii.

the legislature as in Connecticut. The powers of these boards vary greatly. The board has but little power in Kentucky or Colorado where the first type is found. In New York, New Jersey, and Indiana, however, large powers are vested in the board, and very important functions are exercised by it. In Montana and Oklahoma, in addition to power over the lower schools, the same board acts as the board of control for the state university, the agricultural and mechanical colleges, and other state institutions. The tendency has been gradually to centralise power in the board of education.

Educational conditions vary widely in the individual states and from state to state. State control of education varies widely also. The very brief digest of the school laws of New York and Colorado which follows shows the type of state control found in each of these two states.

DIGEST OF THE STATE LAWS OF NEW YORK AND COLORADO, 1912

I. STATE BOARDS

A. General State Board

NEW YORK	COLORADO
Board of Regents: Number: Three more than number of judicial districts in state. At present 12. Membership: Elected by legislature. No ex-officio members. Duties: Exercise legislative functions, determine state educational policies, establish rules.	Board of Education: Membership: Superintendent of Public Instruction, Secretary of State, Attorney-General. Duties: Practically none.

B. Special Boards

1. For Institutions Partially Educational

State normal school boards: Local in organisation. Present some characteristics of state board. Boards for: State School of Blind. Cornell University. Alfred University. State Schools of Agriculture at Cobbleskill, Morrisville, Delhi, Long Island. Syracuse Forestry.	Boards for: Agricultural College, Fort Collins. Agricultural College, Fort Lewis. School for Deaf and Blind. Industrial schools. State Teachers' College, Greeley. State Normal School, Gunnison. School of Mines, Golden. Institution for Dependent Children. Institution for Mental Defectives. State University, Boulder.

2. For Examination

NEW YORK	COLORADO
State Board of Examiners for: Law, medicine, dentistry, veterinary, pharmacy, nursing, optometry, stenography.	State Board of Examiners: Eight members appointed by state board. Examines all candidates for teaching.

3. For Pensions

State Teachers' Retirement Fund Board: Appointed by Commissioner of Education.	

II. OFFICIALS

Commissioner of Education: Elected by majority vote of Board of Regents. 1st, 2nd, 3rd assistant superintendent appointed by commissioner. Chiefs of divisions. District superintendents. Boards of education. Investigators.	State Superintendent: Elected every two years by voters of state. Deputy state superintendent. County superintendents, elected by counties.

III. METHODS OF ADMINISTRATION

A. Levy, Custody, and Distribution of School Funds

Assessment and collection of taxes: Voted in towns at annual school meeting. Collected by county treasurer who is custodian.	County school fund: Levied by county commissioners, not less than .002 or more than .005. Collected by county treasurer, upon recommendation of county superintendent. Apportioned according to the number of children of school age according to reports of previous year.
Legislative apportionment: Appropriated annually by legislature. Applies exclusively to teachers' salaries. Commissioner first sets aside $10,000 for contingencies. Then apportions according to the number of teachers, except in cities and districts of less than 5000 population, where there is a flat rate of $800. District of valuation up to $20,000 receives $200 per teacher; up to $40,000, $175 per teacher; up to $60,000, $150 per teacher; other districts and cities, $125. This is paid, provided there is a superintendent, enforcement of compulsory education law, provision for teachers' institute, and 160 days of school.	Public school fund: Proceeds of sale of state lands. Inviolate, interest only to be expended. State treasurer custodian. Apportioned to counties according to the number of children of school age. County treasurer custodian, after apportionment.

B. Certification of Teachers

NEW YORK

- Teacher must
  - Be 18 years of age.
  - Possess a teacher's diploma or certificate.
- Certificate requires:
  - Successful teaching for 3 years.
  - Graduation from state normal school.
  - Successful examination for life certificate.
  - Three years in high school and two in normal school.
- Commissioner shall prescribe regulations concerning certification and examination.
- Commissioner may issue:
  - Life certificate.
  - Others.
  - Temporary, limited to one year.
- Unqualified teachers shall not be paid out of school moneys.

COLORADO

- Teacher must
  - Be 18 years of age.
  - Possess teacher's certificate.
- Grades of certificates:
  - Third grade:
    - 6 weeks' professional training examination.
    - Good for nine months.
  - Second grade:
    - 12 weeks' professional training examination.
    - Good for eighteen months.
  - First grade:
    - One year successful teaching.
    - 18 weeks' professional training examination.
    - Good for three years.
- Examinations:
  - Held three times a year.
  - Candidate must qualify in orthography, reading, writing, arithmetic, grammar, geography, history, constitution of U.S. and Colorado, civil government, physiology, and natural sciences.

C. Provisions for Training of Teachers

- Normal Schools:
  - Brockport, Buffalo, Cortland, Fredonia, Geneseo, New Paltz, Oneonta, Oswego, Plattsburg, and Potsdam.
- State Normal College, Albany.
- Training classes in high schools:
  - Where there is a class given for 36 weeks, state pays $700.
- Teachers' training classes under local superintendents.
- Teachers' institutes:
  - One in each district each year.
  - Schools must be closed.
  - If teacher does not attend if possible to attend, licence revoked.
  - Public money must be refunded if opportunity is not given teacher to attend.
  - Teacher is entitled to salary during attendance upon institute.

- Normal schools:
  - State Teachers' College, Greeley.
  - Gunnison.
- Normal institutes:
  - State divided into 13 districts.
  - Expense: Registration fee of $1.00 per person. County pays $2.00 per person. When 20 attend the state pays $50.00.
  - Conductors must hold either certificate from or membership in faculties of state normal schools.
- Later Institute Act, providing for six weeks' institutes for all teachers, taken up under referendum and vetoed.

D. Control of Physical Equipment

NEW YORK	COLORADO
School sites: Schools shall not be built upon town line. Plans: Third-class cities or districts shall not make repairs to cost more than $500 without approval of commissioner. The commissioner shall approve all plans. 15 sq. ft. floor space and 200 cub. ft. air per pupil in each room. Ventilation shall provide 30 cub. ft. of fresh air per pupil per minute. There shall be a means of exhausting foul air. No tax of more than $500 can be voted until requirements can be fulfilled. Schools: Shall be convenient of escape. Doors shall open outwards. Stairs straight or with platform. Fire escapes. Separated privies.	Schools must purchase a flag and display it on all holidays. Unlawful to display a foreign flag (with certain exceptions).

E. Consolidation of Rural Schools

New district may be formed out of one or more old ones on written consent of all trustees in districts involved.	Several districts may be organised into one by election of voters in districts upon petition of one-fourth. If voted, boards of former districts shall organise, purchase site, erect building, and *may* at their discretion provide transportation of all children living one mile or more from the school. Apportionment of state money shall be on the school census basis.

F. Course of Study

New York has a well worked-out course of study comprising the minimum requirements which must be followed in all schools. Subject matter is outlined in great detail, methods are explained, the amount of time to be put on a given portion of the work is apportioned, and a long list of text-books is appended.	The course of study, while worked out in detail, is only suggestive, and teachers do not need to follow it. So-called aims are given for each subject for the guidance or mystification of the teacher as the case may be. Text-books are suggested, and many valuable hints are given to teachers. But nothing is compulsory.

G. *Text-Books*

NEW YORK

Text-books:
- Shall be free.
- Shall be selected by the city or district in which they are to be used. May not be changed within five years of selection, except on vote of three-fourths of board.

COLORADO

Text-books:
- Shall be free.
- Shall be selected by local school board, and this selection cannot be changed for four years, unless publishers advance price or lower quality.

H. *Inspection and Supervision.*

Inspection of common schools:
- By boards of education. Committee of board shall visit every school twice per quarter.
- By commissioner.
- By district superintendent.
- By board of regents.

Supervision:
- By district superintendent, who is to confer with teachers as to course of study, discipline, and management. He is also to confer with trustees and school officers.
- No money is to be paid from the school fund unless there is " a competent superintendent whose time is devoted exclusively to the supervision of schools."

State superintendent shall visit annually " such counties in the state as most need his personal attendance, and all counties, if practicable, for purposes of inspecting schools, calling attention to defects, and awakening and guiding public sentiment."

County superintendent is supposed to visit schools, but where counties average over 1700 square miles little supervision is possible.

I. *Compulsory Education*

Children 7–14 shall go to school 160 days per year. Children 14–16 shall attend school if they are not working. Boys 14–16 who have not finished the eighth grade, and who are working, shall attend night school.

Enforcement:
- Teachers must keep accurate records.
- School record certificate.
- Attendance officers.
- Truant schools.
- If law is not complied with, one half of public money is withheld, and if not complied with within a year the money is not turned back.

Children shall be sent to school, public, private, parochial, between the ages of 8 and 16, except when the child has completed the eighth grade and is 14.

Child exempt:
- On physician's certificate.
- Deaf or blind.

Enforcement:
- No child under 14 shall be employed during school term.
- All children between ages of 14 and 16 who cannot read and write shall attend school.
- Truant officers.
- Fines, on parents and employers.
- This law does not apply in districts where there are insufficient accommodations.

J. Medical Inspection

NEW YORK	COLORADO
Duty of board of education to provide medical inspection of all children in attendance upon schools, whenever in their judgment such inspection shall be necessary.	Superintendent shall prepare or cause to be prepared blanks and apparatus for testing sight, hearing, breathing, which shall be done by each teacher during the first month of school year.

Local Control.—Despite the fact that the general tendency in American government is toward the centralisation of power in larger units, and while the states are securing increasingly greater power over education within their boundaries, the local unit still holds a good share of the power in the direction of schools in the United States. The oldest and least efficient plan of local administration is the system in which the local *school district* is the unit of control, conducting its affairs with but little supervision and control from the higher authorities. This was long used with unfavourable results in Massachusetts and is now found in Illinois and Arkansas. The district elects its own board of education, which administers the schools. It determines the qualifications of teachers, selects them, fixes their pay. It determines what shall be taught and, in general, has power over the single school which it is commissioned to run. This system has allowed the prospects of children to depend upon the varied whims of isolated communities. Rich sections are favoured; poor sections handicapped. The district system condemns future generations to the ways of their ancestors. Only after long and hard fighting in most of the states has local pride consented to do away with it, entrusting the administration of schools to the authorities of a larger unit.

The *town system* in New England and the *township system* in the west are improvements upon the district system. The town, an irregular-shaped area comprising both urban and rural sections, has all its affairs administered by one central body, combining under one administration roads, drains, sewers, poor relief, public utilities, parks, libraries, taxes, and schools. In many of these towns and townships a superintendent is elected to have charge of the schools. Occasionally one member of the board has this duty. "The result of this system," says Cubberley, "is the pooling of effort by the entire town for the good of all. It results first in the equalisation of tax rates for schools throughout the entire town. All pay the same rates for schools, and all share equal advantages. Other results are an equally long term throughout the entire town; better teachers employed for the smaller schools, and at better wages; a uniform course of instruction for all schools; free tuition for all in the central high school; special instruction for all in such subjects as music, drawing, and manual training; good supervision for all schools; and a systematic organisation of the town's resources under a single small board, responsible to the town for results."[1] The *township system* is much like the town system, covering a similar territory. It has not been as successful, however, because urban districts within the town have as a rule been unwilling to pool their effort with the rural communities. This has worked against the equalisation of opportunity which has come with the larger unit of control.

The *division system* found in Kentucky, an improvement on the district system, divides each county into four, six, or eight divisions, the schools of each division being controlled by a board elected from that division. This board is supervised by a county board composed of one representative from each division board. As the local school districts were supplanted by this wider system of administration many of the improvements noted above have followed.

The *county system* represents the most efficient plan of local administration now found in the United States. Instead of the local school district the unit of control is larger, usually from 500 to 1000 square miles. A county board of education or its equivalent is elected from the county at large, and its executive officer, the county superintendent of education, is either appointed by this body or elected at large.[2] In twenty-five states the county superintendent is elected by the people; in five by the county board or its equivalent; in two states by the governor; and in two by the state board of education. As a rule urban districts within the county are not under the supervision of this board; but often, as in Maryland, there is a close connection between the two. This system tends to eliminate petty local differences and wide variation of educational opportunity within small areas, and has fostered the introduction of rural high schools, thus giving rural communities nearly as good opportunities as those of the city. It has made possible, through the elimination of small school districts, the consolidation of many one-room rural schools into larger schools, having children from a distance transported. One of the chief faults of this system has been the composition of the board of education. Where it is elected by the people there has been a tendency to select politicians, and in many sections the county superintendent of education has been nothing but a political clerk whose chief activities were the grooming of his district for re-election. In recent years, through state law and public sentiment, the tendency has been toward the selection of trained educational experts for positions of importance in county administration. The county system of control is the best approach that people in many sections of the United States have made toward that equality of opportunity which would be found under thorough-going state or national control of education.

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[1] E. P. Cubberley, in Monroe, *Cyclopedia of Education*, vol. v. p. 617.

[2] The salaries for this office vary from $7500 to less than $100 per annum. New Jersey pays the highest average salaries, $3000 for each county superintendent. In most of the states the salary is not sufficient to attract a first-class man.

National Control.—Strictly speaking there is no such thing as national control of education in the United States. We deal only with tendencies in that direction.

On March 2, 1867, a bill was passed by Congress creating a Department of Education, co-ordinate with the departments of State, Treasury, War, Navy, and the like. The states and their representatives in Congress, however, have always opposed with vigour any effort to confer upon the national government any power to deal with purely intra-state matters, and this has been particularly true in regard to education. As a result this department was reduced in rank to that of a bureau, under the Department of the Interior, where it has since remained. Because of the unwillingness of the states to regard education as anything but a local matter, the work of this bureau was long hampered, appropriations were meagre, and it is only in the last few years that anything approaching adequate support has been given it. Its work has been restricted to the gathering of statistics and the administration of certain distant schools in Alaska. Up to the present it has been little more than an educational clearing house.

At present, the Bureau of Education is increasing its influence. It collects rather complete data regarding education in the country as a whole, and in its annual reports disseminates much information of value to teachers. Through certain school surveys, which it is either directing or to which it is lending assistance, it is providing expert leadership and aiding in the scientific study of education. Through the numerous experts in certain fields of education which it maintains its influence is reaching out into all the schools. It has also rendered valuable service to education through its many special bulletins, providing the means and material for investigation and the dissemination of results throughout the land. The budget for this bureau in 1913 was as follows:

TABLE II[1]

Budget for the United States Bureau of Education in 1913

Salaries:		
Commissioner	$5,000	
Chief clerk	2,000	
Specialist in higher education	3,000	
Editor	2,000	
Statistician	1,800	
Specialist in land-grant college statistics	1,800	
Translator	1,800	
Specialist in foreign educational systems	1,800	
Specialist in educational systems	1,800	
Clerks, messengers, copyists, labourers	43,400	
		$64,400
Books, etc., for library		500
Investigation of rural hygiene, industrial education, and school hygiene		15,000
Collecting statistics		3,600
Purchase, distribution of educational documents		2,500
Travelling expenses		1,500
Education of natives of Alaska		200,000
Reindeer of Alaska		5,000
Printing and binding		50,000
Total		$342,500

Excluding the $205,000 for education in Alaska, the appropriation is very small when compared with other bureaus.

Another influence toward centralisation of control of education in the national government has been the distribution of surplus revenue and land from the national domain for the purpose of fostering schools and colleges. The precedent for this was set in the Ordinance of 1787 where one-thirty-sixth of the land was set aside for school purposes. With the exception of Maine and Texas, all states entering the union up to 1850 were granted this privilege. In 1850 California was granted one-eighteenth of the land for school purposes, while in 1896 Utah was admitted with one-ninth of the land for similar purposes.

In 1837 the United States distributed to the various states over twenty-eight millions of dollars from its large surplus in the National Treasury, the interest on which was largely to be used for schools. The school funds of the various states actually received about one-fourth of this, and although such funds were badly managed some seven and one-half millions still remain as a portion of the state funds for school purposes. This, together with the proceeds from the sale of state lands, has resulted in great funds for the development of education. Texas has a state fund of over $65,000,000 which will amount in time to more than $100,000,000. Minnesota's fund of $25,000,000 is increasing by a million dollars a year from royalties on mineral leases and from the sale of land and timber. Many other states are not so fortunate; but in every state moneys are appropriated to schools from the general fund or general treasury. Thus the national government has assisted states to secure power over schools within their limits. A few states pay more than one-third of the expense of schooling for the whole state regardless of local taxation. Many others pay from ten to twenty per cent. Through the threat of withholding state funds many improvements have been made in education.

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[1] Cubberley and Elliott, *Source Book in State and County School Administration*, p. 114.

The national government is even beginning to make direct appropriations for education. In 1887 direct appropriations from the national funds were made to found and support agricultural experiment stations in each state. Starting at $15,000 annually per state, this aid has been greatly increased. Recently the Smith-Lever Act provided large governmental support of agricultural extension work in the various states, while the Smith-Hughes Bill, which probably will be passed by the next Congress, will provide seven millions of dollars annually to assist in the payment of salaries of teachers of agriculture, industrial arts, and home economics in the elementary and high schools, and in the training of such teachers.

Experience has shown that much of the control over the local unit in the various states was due to state control and distribution of funds. It is safe to predict that as the central government increasingly furnishes money to found, support, or encourage various educational enterprises within the various states, increasing control will be put in its hands.

Control of Education in Cities.—Urban districts, as they have grown up in the United States, have become accustomed to the exercise of considerable power over their own schools. This was due in earlier years to the decentralised control of education which was common; and in later years, despite state laws regarding education, cities have had charge of their own destinies, not so much because they did not obey these laws, but rather because they were *in advance* of existing laws. This is well shown by the greater salaries paid the city superintendent as compared with the state superintendent. Many states specifically exempt cities from the provisions of the law. In Tennessee, for example, cities over 8000 in population are not accountable to many provisions of the law.

Over forty per cent. of the population of the United States is gathered in cities. These range in size from New York with over 5,000,000 inhabitants and Chicago with over 2,500,000 down to small communities of four or five thousand. The affairs of these cities as regards education are generally entrusted to school boards of varying size. Of the 100 largest cities, 56 have boards of 9 or less, 25 of 10 to 15, 15 have 16 to 20, while 4 have 20 or more members. Albany, N.Y., has 3 members, Pittsburg 45, and New York 46. These boards are usually chosen by popular election, some seventy-five of the one hundred largest cities using this method. In sixteen they are appointed by the mayor. The term for which members are elected varies, the usual length of time being three years. The office usually carries no salary, although there are a few exceptions, as in Rochester, where each of the four members receives $3000 annually. The tendency is toward a small unpaid board, selected by the people at large without regard to political or partisan connections.[1]

Nearly every city has a superintendent of schools as the administrative officer of this board, in charge of the city system of schools. In most of the cities he is appointed by the board, but in a few cases, notably in San Francisco and Buffalo, he is elected by a vote of the people. This office is usually held by a man, but a woman was superintendent of Chicago for a number of years. The term of office ranges from one to six years, usually about three, and with success an appointment is usually permanent. The annual salary varies.

TABLE III[2]

Minimum, Maximum, and Average Salaries paid to City School Superintendents, 1913–14

Size of city.	Minimum.	Maximum.	Average.
250,000 and more	$4,000	$10,000	$7,178
100,000–250,000	3,300	7,500	4,422
50,000–100,000	2,400	5,000	3,582
25,000– 50,000	2,000	5,000	3,019
10,000– 25,000	1,200	4,250	2,474
5,000– 10,000	400	3,600	1,915

[1] Data from E. C. Elliott, in Monroe, *ibid.* vol. ii. pp. 16-22.

[2] U.S. Bureau of Education, 1914, *Bul.* 16, pp. 10–12.

Education in the cities is usually far in advance of that in the rural districts. Teachers are better paid, school terms are longer, buildings are far finer, and general conditions much more satisfactory. The rural district with a population of fifteen to twenty to the square mile cannot provide similar facilities without great help.

V. ELEMENTARY EDUCATION

General Description.—In the United States the elementary school is the foundation of the whole educational system. It is not an institution for a particular class of people. It receives its pupils at the age of six, or thereabouts, and trains them normally for eight years. The southern states and New England represent exceptions to this, seven and nine years of elementary schooling respectively being the rule. The work of this type of school is fundamental to the work of all other schools; and while in its origin it was designed to provide for the poorer classes, like the European elementary schools, through the change in the theory of the state it has become the beginning school for all Americans, rich and poor, bright and dull. Every future American citizen passes through this common gateway, unless his parents choose to send him to a private or parochial school, where the equivalent is completed. Graduation from this school is required for admission to high school.

In the elementary school the pupil is supposed to acquire the fundamentals needed in any walk of life. At the completion of the course he is supposed to be able to read, write, and express his thoughts written or orally in correct language, to be expert in the fundamentals of arithmetic, to be familiar with geography and history, particularly of his native land, to know simple facts of science and the care of the health, and through literature, music, art, manual training, and the like to be better able to enjoy his periods of leisure.

These schools are usually kept open five days a week, Saturday and Sunday being holidays. They open in the morning at eight or nine o'clock and close at two or three or later in the afternoon, with an hour or more vacant at noon for dinner. The average time per week for fifty American cities is 24.94 hours, an average of a little less than five hours per day. The children in the lower grades are usually kept for a shorter time.

Boys and girls commonly attend the same schools.

Attendance.—In the elementary schools of the United States

19,064,787 children were enrolled in 1913. These were distributed through the eight grades as follows:

First grade	4,480,225 [1] (estimated)
Second grade	2,819,682
Third grade	2,651,912
Fourth grade	2,531,804
Fifth grade	2,150,508
Sixth grade	1,763,493
Seventh grade	1,454,643
Eighth grade	1,212,520

On this basis, the estimated percentage enrolled in each class is:

	per cent.		per cent.
First grade	23.50 [1]	Fifth grade	11.28 [1]
Second grade	14.79	Sixth grade	9.25
Third grade	13.91	Seventh grade	7.63
Fourth grade	13.28	Eighth grade	6.36

It is clear, therefore, that many of the children are retarded, and that hardly one in four finishes the course that he begins.

TABLE IV [2]

Average Number of Days Schools were kept open in the Various States and the Average Number of Days attended by Each Pupil

Rhode Island	193—148	Missouri	155—107
New York	187—149	Minnesota	149—118
Massachusetts	186—154	North Dakota	147— 95
Maryland	185—114	Indiana	147—117
Connecticut	185—114	Nevada	145—106
Montana	185—116	Georgia	144— 93
New Jersey	184—113	Wyoming	141—102
California	182—142	Oklahoma	140— 79
Wisconsin	180—124	Virginia	140— 90
Nebraska	174—119	Oregon	138—122
Delaware	173—108	Idaho	137— 91
Washington	172—125	Louisiana	136— 94
Iowa	172—121	Arizona	135— 87
Michigan	171—140	West Virginia	134— 92
Illinois	171—140	Texas	131— 87
Ohio	170—132	Tennessee	130— 91
Pennsylvania	170—133	Kentucky	125— 80
South Dakota	166—106	Mississippi	123— 75
Utah	165—125	Alabama	117— 74
New Hampshire	164—129	Arkansas	107— 69
Kansas	164—120	Florida	106— 81
Vermont	160—125	South Carolina	105— 75
Maine	159—119	North Carolina	102— 65
Colorado	156— 99	New Mexico	100— 66

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[1] Data from U.S. Commissioner of Education, p. xiv. 1914.

[2] From *A Comparative Study of the Forty-Eight States*, Russell Sage Foundation, 1912.

Length of School Term.—In the fifty cities reported by Professor Holmes the length of the school year averaged 38.75 weeks. This condition is true only in cities and in abnormally wealthy and advanced rural districts. Table IV. (p. 25) gives the average length of school term in the various states, including the average number of days in which the schools were kept open and the average number of days' attendance of each pupil.

Most of the states prescribe a minimum term, though it is common in some states to find some districts so poor that they cannot even keep their schools open this long. In 1909-10 the minimum term requirements for the various states were as follows:

6 states had no legal minimum term[1]
4 ,, ,, 60 days
5 ,, ,, 80 ,,
9 ,, ,, 100 ,,
11 ,, ,, 120 ,,
4 ,, ,, 140 ,,
5 ,, ,, 160 ,,
3 ,, ,, 180 ,,
1 ,, ,, 200 ,,

Compulsory Attendance Regulations.—The length of the school term varies with state law, with the wealth and educational ambition of various communities. The variation in attendance, a measure of the latter element, depends upon the law regarding compulsory attendance. Some states have very effective laws of this sort. For instance, New York state has the following provision:

> " Instruction required shall be (1) at a public school in at least the branches of spelling, reading, writing, arithmetic, English language, and geography taught in English, or (2) elsewhere than at the public schools in same subjects taught in English by a competent teacher. Every child within compulsory school age in cities and districts of more than 5000 and employing a superintendent shall, when in proper mental and physical condition, attend upon instruction; when between seven and fourteen years of age for full session of at least 180 days; between fourteen and sixteen, unless lawfully employed and possessing an employment certificate, for full session. In other districts each child between eight and fourteen shall attend full time, and those between fourteen and sixteen, unless lawfully employed, shall attend full time. . . . Every boy between the ages of fourteen and sixteen residing in a city of the first or second class and in possession of an employment certificate, who has not completed elementary school course, shall attend evening schools for at least sixteen weeks of six hours each. In cities and districts maintaining part-time and continuation classes, persons between the ages of fourteen and sixteen years in possession of employment certificates, and who have not completed elementary schools, may be required to attend such classes for at least thirty-six weeks per year, of not less than four or more

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[1] E. P. Cubberley in Monroe, *ibid.* vol. v. p. 567.

> than eight hours per week, between eight o'clock a.m. and five o'clock p.m. Attendance upon part-time or continuation classes shall exempt attendance upon evening schools. Instruction and attendance at other than public schools shall in all ways be equivalent to the requirements of public schools. Persons in parental relation shall cause children of school age to attend school in conformity to compulsory attendance requirements; a violation of this provision shall be a misdemeanour. It shall be unlawful for any person, firm, or corporation (1) to employ any child under fourteen years of age during time public schools are in session; (2) to employ elsewhere than in a city of the first or second class, in a factory or mercantile establishment, business or telegraph office, restaurant, hotel, or apartment house, or as a messenger, any child between the ages of fourteen and sixteen years of age who does not possess an employment certificate and a school-record certificate; (3) to employ any child in a city of the first or second class who does not possess an employment certificate. The employer of any child between the ages of fourteen and sixteen years shall display in place of employment the employment certificate of such child, and his part-time, continuation, or evening-school certificate issued by the school authorities; a violation of this provision shall be a misdemeanour. Teachers shall keep attendance record of all children between the ages of seven and sixteen years. A school certificate shall show that the holder has attended school for at least 130 days during the twelve months next preceding his fourteenth birthday, or during the twelve months next preceding his application for such school record, that he has completed the subjects of the first six grades of the elementary school or the equivalent thereof, and shall give name of parent, guardian, or custodian, and child's residence and date of birth. . . . The attendance officer may arrest any truant child between the ages of seven and sixteen years, without warrant, and return him to school, or in the case of incorrigible or habitual truants, bring them before a police magistrate for commitment to a truant school. . . . Commissioner of education may withhold one-half of public moneys from any district failing to conform to compulsory education law."[1]

Other states do not have such effective laws. In Virginia, where the schools were open for an average of 140 days, with children at school but 90 days on the average, the provisions in the school laws are as follows:

> "Every person having control of a child between eight and twelve years old shall send such child to a public school for at least twelve weeks in the year. *Exemptions:* Children excused by school board, those weak in body or mind, those who can read and write, those attending a private school, those living more than two miles from the nearest public school, or more than one mile from an 'established public free-school waggon-route.' This act shall not apply to any county, city, town, or magisterial district constituting a separate school district until the qualified voters thereof shall so vote. In every county where the provisions of this act are accepted the district school board shall in February and September ascertain the condition of all children between the ages of eight and twelve years old who are not attending school, and the district clerk shall prosecute for violations of this act. Parent or guardian who violates this act shall be fined not less than $5 nor more than $20 for each offence. District clerk shall be fined $5 or $10 for failure to perform the duties imposed upon him.

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[1] U.S. Bureau of Education, 1915, *Bul. No.* 47, pp. 547–9.

Two weeks' attendance at half-time or night school shall be equivalent to one week at day school." [1]

For the country as a whole the following table shows the conditions as to compulsory attendance:

TABLE V [2]

Compulsory School Attendance Laws

State.	Present age limit.	Minimum period of compulsory attendance.	Percentage of illiterates in population 10–14 years of age.
North Atlantic Division			
Maine	7–15	Full school year	.8
New Hampshire	8–14	,, ,, ,,	.3
Vermont	8–16	150 days	.3
Massachusetts	[3] 7–14	Full school year	.2
Rhode Island	7–15	,, ,, ,,	.6
Connecticut	7–16	,, ,, ,,	.3
New York	[4] 7–14	,, ,, ,,	.3
New Jersey	7–14	,, ,, ,,	.5
Pennsylvania	8–16	,, ,, ,,	.5
North Central Division			
Ohio	8–16	,, ,, ,,	.3
Indiana	[5] 7–14	,, ,, ,,	.3
Illinois	7–16	,, ,, ,,	.3
Michigan	7–16	,, ,, ,,	.3
Wisconsin	7–14	6 months	.3
Minnesota	8–16	Full school year	.3
Iowa	7–16	24 consecutive weeks	.2
Missouri	8–14	Three-fourths of school year	1.2
North Dakota	8–15	Full school year	1.2
South Dakota	8–14	,, ,, ,,	.7
Nebraska	7–15	12 weeks	.3
Kansas	8–15	Full school year	.3
South Atlantic Division			
Delaware	7–14	5 months	1.5
Maryland	[5] 8–14	4 months	2.5
Dist. of Columbia	8–14	Full school year	.4
Virginia	[6] 8–12	12 weeks [6]	9.2
West Virginia	8–15	24 weeks	2.7
North Carolina	8–12	4 months	10.1
South Carolina	—	No compulsory law	17.1
Georgia	—	,, ,, ,,	13.6
Florida	—	,, ,, ,,	10.3

[1] U.S. Bureau of Education, 1915, *Bul. No.* 47, pp. 556–7.

[2] U.S. Commissioner of Education, *Annual Report*, 1914, vol. ii. p. 8.

[3] 14–16 if not able to read and write.

[4] 7–17 if unemployed.

[5] 14–16 if unemployed.

[6] Local option.

TABLE V—(*continued*)

State.	Present age limit.	Minimum period of compulsory attendance.	Percentage of illiterates in population 10–14 years of age.
South Central Division			
Kentucky	[1] 7–12	Full school year	6.0
Tennessee	8–14	80 consecutive days	7.5
Alabama	—	No compulsory law	16.4
Mississippi	—	,, ,, ,,	12.8
Louisiana	8–16	Full school year	24.6
Texas	—	No compulsory law	6.3
Arkansas	[2] 8–16	One-half school year	8.2
Oklahoma	8–16	66 per cent. school year	2.4
Western Division			
Montana	[3] 8–14	Full school year	1.3
Wyoming	7–14	,, ,, ,,	.5
Colorado	8–16	,, ,, ,,	.9
New Mexico	7–14	,, ,, ,,	11.1
Arizona	8–16	,, ,, ,,	15.2
Utah	8–16	20 weeks	.7
Nevada	8–16	Full school year	4.3
Idaho	8–18	,, ,, ,,	.4
Washington	8–15	,, ,, ,,	.4
Oregon	9–15	,, ,, ,,	.2
California	8–15	,, ,, ,,	.6

Programme of Studies.—The general character of the programme of studies is fairly uniform throughout the country. Reading, language, spelling, writing, and arithmetic receive the major portion of the time and effort, while history, geography, science, drawing, music, and manual training and the like receive less consideration. Diversities in the course of study and the time devoted to the several branches occur, and vary not so much from state to state as according to the size of the school. By far the greatest number of elementary schools in the United States are one-room rural schools with but one teacher and a few pupils, and as the number of rooms and teachers advances the total number becomes relatively smaller. The following scattered statistics taken from a few reports of state superintendents

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[1] 7–12 in country districts; 7–16 in cities.

[2] 16–20 if unemployed; applies only in 38 counties; 8–14 in 9 counties; 28 counties have no compulsory education law.

[3] 14–16 if unemployed.

Daily Programme of Recitations and

Time.	Recitation.	Beginners and Grade I. (6)	Grade II. (4)	Grade III. (4)
9.00	OPENING EXERCISES (Music, nature study, story hour, penmanship)			
9.15	1st and 2nd NUMBERS	NUMBERS	NUMBERS	Prepare numbers
9.25	3rd NUMBERS	Stringing	Number work from blackboard	NUMBERS
9.30	4th NUMBERS	„	„	Number work from blackboard
9.40	5th ARITHMETIC [1]	Sand table	Go to board to illustrate arithmetic	„
9.55	6th ARITHMETIC [1]	Excused	Excused	Excused
10.10	7th and 8th ARITHMETIC	„	„	„
10.30	*RECESS*	*RECESS*	*RECESS*	*RECESS*
10.45	BEGINNING READING	BEGIN. READING	Prepare reading	Prepare reading
10.50	1st READING	1st READING	„ „	„ „
10.55	2nd „	Build sentences out of hektographed words from lesson	READING	„ „
11.05	3rd „		Build words out of letters	READING
11.15	4th „	Excused	Excused	Illustrate reading with paper cutting
11.30	5th „ [2]	„	„	Excused
11.40	U.S. History, 7th and 8th [2]	„	„	„
12.00	*NOON RECESS*	*NOON*	*NOON*	*NOON*
1.00	BEGINNING READING	BEGIN. READING	Use reading books	Use reading books
1.05	1st READING [3]	1st READING	„ „	„ „
1.15	2nd READING [3]	Drawing	READING	„ „
1.25	3rd READING	„	Illustrate reading at sand table	READING
1.35	4th LANGUAGE OR GEOGRAPHY	„	„ „	Set work from reading lesson
1.50	5th LANGUAGE OR PHYSIOLOGY	„	„ „	„ „
2.05	1st, 2nd, 3rd LANGUAGE	LANGUAGE	LANGUAGE	LANGUAGE
2.15	7th and 8th GRAMMAR and PHYSIOLOGY (alternate)	Excused for day	Excused for day	Excused
2.30	*RECESS*	*RECESS*	*RECESS*	*RECESS*
2.45	3rd and 4th SPELLING			SPELLING
3.00	5th GEOGRAPHY [4]			Excused for day
3.15	6th, 7th, 8th, GEOGRAPHY [4]			
3.35	8th CIVICS			
3.45	5th, 6th, 7th, 8th SPELLING			
4.00	*DISMISSAL*	*DISMISSAL*	*DISMISSAL*	*DISMISSAL*

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[1] Alternates with agriculture in the spring. [2] One sixth grader worked with 5th grade;

Out-of-Class Activities of One District One-Room School

Grade IV. (6)	Grade V. (3)	Grade VI. (2)	Grade VII. (4)	Grade VIII. (1)
Prepare numbers	Prepare arith.	Prepare arith.	Prepare arith.	Prepare arith.
" "	" "	" "	" "	" "
NUMBERS	" "	" "	" "	" "
Numbers from book	ARITHMETIC	" "	" "	" "
" "	Arith. from book	ARITHMETIC	" "	" "
Drill in arith.	" "	Arith. from book	ARITHMETIC	ARITHMETIC
RECESS	*RECESS*	*RECESS*	*RECESS*	*RECESS*
Prepare reading	Prepare reading	Prepare reading	Prepare history	Prepare history
" "	" "	" "	" "	" "
" "	" "	" "	Gen. and individual assignments Prepare history	Prepare history
" "	" "	" "	" "	" "
READING	" "	" "	" "	" "
Pick out names of people, towns, etc., from reading lesson	READING	One 5th READING	" "	" "
	What would pupils do under similar conditions?	One 7th HISTORY	HISTORY	HISTORY
NOON	*NOON*	*NOON*	*NOON*	*NOON*
Read of types of people in geog.	Prepare language	Prepare language	Prepare grammar	Prepare grammar
" "	" "	" "	" "	" "
" "	" "	" "	Poems and dramatisation Prepare grammar	Prepare grammar
" "	Prepare spelling	Prepare geography	" "	" "
LANGUAGE OR GEOGRAPHY	" "	" "	Prepare geography	Prepare geography
Illustration of subject studied	LANGUAGE OR PHYSIOLOGY	LANGUAGE OR PHYSIOLOGY	" "	" "
" "	Prepare geography	Prepare geography	" "	" "
" "	" "	" "	GRAMMAR OR PHYSIOLOGY	GRAMMAR OR PHYSIOLOGY
RECESS	*RECESS*	*RECESS*	*RECESS*	*RECESS*
SPELLING	Prepare geography	Prepare geography	Prepare geography	Prepare spelling
Excused for day	GEOGRAPHY	Prepare spelling	Prepare spelling	Prepare spelling
	Prepare spelling	GEOGRAPHY	GEOGRAPHY	GEOGRAPHY
	" "	Prepare spelling	Prepare spelling	CIVICS
	SPELLING	SPELLING	SPELLING	SPELLING
DISMISSAL	*DISMISSAL*	*DISMISSAL*	*DISMISSAL*	*DISMISSAL*

---

one with 7th and 8th. [3] Sometimes combined with literature. [4] Drawing, etc.

of public instruction show the importance of the rural school:

Tennessee, 1912–13 [1]

1 teacher schools . .	4,067
2 ,, ,, . .	1,204
3 ,, ,, . .	269
4 ,, ,, . .	92
5 ,, ,, . .	35
6 and more teacher schools .	62

North Carolina, 1912–13 [2]

1 teacher schools . .	7,863
2 and more teacher schools	1,722

Kansas, 1911–12 [3]

1 teacher schools . .	7,863
2 and more teacher schools	2,325
Small cities . . .	1,237
Large cities . . .	1,091

Ohio in 1912-13 reporting for the rural districts showed 10,288 schools, and while not giving data as to their distribution according to the number of teachers, reported but 11,745 rooms in these buildings.[4] For an earlier date, 1910, in the 21 states where data are available, 37.6 per cent. of the pupils attending all public schools were enrolled in one-teacher rural schools. In a similar way 60.2 per cent. of all pupils attending rural schools were enrolled in one-teacher schools.[5] This indicates that the great majority of these schools were one-room schools.

The schedule on pp. 30, 31 gives one day's activity in a one-room rural school. One teacher had charge of thirty children distributed through all eight grades.

The great majority of public elementary schools of the United States are of this type. The country is predominantly rural; and the people live in the main on their farms, scattered and distant one from the other. Many of the states, however, have realised the inefficiency of this type of elementary schooling and have passed state laws to facilitate the consolidation of these schools. When local districts take advantage of such legislation, two or more small one-room schools are abandoned, a central school is built, and the pupils from a distance are transported to and from school in waggons, such transportation being paid for out of the general school moneys. In the report of the Commissioner of Education for 1915,[6] the following statements are made in regard to the recent progress in consolidation which may be considered as indicative of work in other states:

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[1] Tennessee, *Report State Superintendent of Public Instruction*, 1913–14, p. 47.

[2] North Carolina, *Report State Superintendent of Public Instruction*, 1912–14, p. 61.

[3] Kansas, *Report State Superintendent of Public Instruction*, 1911–12, p. 75.

[4] Ohio, *School Report*, 1912–13, p. 9.

[5] Monahan, *The Status of Rural Education in the United States*, U.S. Bureau of Education, 1913, *Bul. No.* 8, p. 25.

[6] *Report*, U.S. Commissioner of Education, 1915, i. pp. 95–6.

> "Missouri reports 175 consolidated schools to which 7000 children are transported in 400 waggons, and 200 other consolidated schools without transportation.
>
> "North Dakota reports 333 consolidated schools, 205 of which are in towns and 128 in the open country. This is an increase of 60 during the past year. The records of the state inspector of rural schools show that the proportion of pupils enrolled in the eighth grade in the consolidated schools of the state is twice as great as in the eighth grade of other rural schools; also that on account of these consolidated schools, the high school enrolment has increased over threefold in the past four years. . . .
>
> "Indiana reports that in 1914 there were 665 consolidated schools in 71 of the 92 counties of the state, attended by 73,404 children, or 35.9 per cent. of all the pupils attending rural schools; 26,403 children were transported at an expense to the public of $491,265. This is approximately 36 per cent. of the children attending the consolidated schools. A recent study of the consolidated schools of Indiana by the state department of education reveals certain evidences that better educational opportunities are presented in the consolidated schools than in the rural schools; for instance, that better teachers are provided is indicated by the fact that the average daily wages paid in consolidated schools are $3.37 as compared with $2.76 in other rural schools. In spite of this greatly increased salary, the cost per pupil in the consolidated school is not much greater than in the other rural schools, the figures being $25.64 and $22.71 respectively. . . . In the past five years the number of schools abandoned was 916. . . .
>
> "In Iowa 55 consolidated schools were established during the year, nearly all with two- or four-year high-school departments. These schools have all been established under provisions of an act of the legislature of 1913, giving special state aid for departments of agriculture, domestic science, and manual training in consolidated schools. Each school has a site of from 4–10 acres for agricultural teaching. . . ."

For purposes of illustration a consolidated school with eight grades and four teachers, two grades to a room, is chosen.

The enrolment was:

Grade I.	27	Grade V.	26
Grade II.	32	Grade VI.	19
Grade III.	25	Grade VII.	24
Grade IV.	24	Grade VIII.	20

The daily programme, the work in actual recitation with the teacher being given in capitals, runs as follows:

Teacher A. Grades I. and II.

Time.	Grade I.	Grade II.
8.30	OPENING EXERCISES	OPENING EXERCISES
8.50	1st READING	Prepare reading
9.10	A. Primer	" "
9.30	B. Primer	Write spelling
9.50	PHYSICAL CULTURE	PHYSICAL CULTURE
9.50	"Busy work"	READING
10.10	RECESS	RECESS
10.15	1st SPELLING	Sentence making
10.25	Making numbers	SPELLING
10.35	NUMBERS	Written numbers
10.55	Work with blocks, sticks, balls, etc., to impress numbers	NUMBERS
11.30	NOON RECESS	NOON RECESS
12.30	SINGING	SINGING
12.40	TALK ON NATURE, PHYSIOLOGY, ETC.	
1.00	WORD DRILL	Prepare reading
1.15	Cover new word with corn	PHONOGRAMS
1.25	PHONOGRAMS	Prepare reading
1.30	Form new words with pegs, etc.	READING
1.40	READING	Write story
1.50	RECESS	RECESS
2.00	WRITING	WRITING
2.20	LANGUAGE WORK, STORIES, AND GAMES	
3.00	DISMISSAL	DISMISSAL

Teacher B. Grades III. and IV.

Time.	Grade III.	Grade IV.
8.30	CHAPEL	CHAPEL
8.45	STUDY PERIOD	STUDY PERIOD
9.00	Written language	READING
9.30	LANGUAGE	Prepare spelling
9.45	Spelling	SPELLING
10.10	RECESS	RECESS
10.15	STUDY PERIOD	STUDY PERIOD
10.30	ARITHMETIC	Prepare arithmetic
11.00	Prepare reading	ARITHMETIC
11.30	NOON RECESS	NOON RECESS
12.30	READ OR TELL A SHORT STORY	
12.40	READING	Prepare language
1.10	Learn quotations	LANGUAGE
1.30	WRITING	Prepare geography
1.50	RECESS	RECESS
2.00	PHYSIOLOGY OR GEOGRAPHY	Prepare geography
2.15	Prepare spelling	GEOGRAPHY
2.40	Written work	WRITING
3.00	DISMISSAL	DISMISSAL

Teacher C. Grades V. and VI.

Time.	Grade V.	Grade VI.
8.30	CHAPEL	CHAPEL
8.50	Prepare arithmetic	SPELLING
9.00	ARITHMETIC	Prepare arithmetic
9.30	Prepare geography	ARITHMETIC
10.00	RECESS	RECESS
10.15	GEOGRAPHY	Prepare reading
10.45	Prepare physiology	READING
11.05	PHYSIOLOGY	Prepare history
11.30	NOON RECESS	NOON RECESS
12.30	CURRENT EVENTS, NATURE STUDY, DRAWING	
12.40	Prepare language	HISTORY
1.00	WRITING	WRITING
1.10	LANGUAGE	Prepare language
1.30	Prepare reading	LANGUAGE
1.50	RECESS	RECESS
2.00	READING	Prepare geography
2.25	Prepare spelling	GEOGRAPHY
2.50	SPELLING	Prepare spelling
3.00	DISMISSAL	DISMISSAL

Teacher D. Grades VII. and VIII.

Time.	Grade VII.	Grade VIII.
8.30	CHAPEL	CHAPEL
8.40	ARITHMETIC	Prepare arithmetic
9.00	Prepare geography	ARITHMETIC
9.20	WRITING	WRITING
9.35	GEOGRAPHY	Prepare history
10.00	RECESS	RECESS
10.15	Prepare physiology	HISTORY
10.35	PHYSIOLOGY	Prepare physiology
10.55	Prepare spelling	PHYSIOLOGY
11.15	SPELLING	Prepare reading
11.30	NOON RECESS	NOON RECESS
12.30	Prepare grammar	READING
12.50	GRAMMAR	Prepare grammar
1.10	Prepare history	GRAMMAR
1.30	HISTORY	Prepare geography or agriculture
1.50	RECESS	RECESS
2.00	Prepare geography [1]	GEOGRAPHY OR AGRICULTURE [1]
2.20	READING	Prepare spelling
2.40	Prepare arithmetic	SPELLING
3.00	DISMISSAL	DISMISSAL

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[1] Grade VII. recited agriculture at 2.0 on Tuesday and Thursday; Grade VIII. recited geography on Monday at 2.0 and agriculture on Wednesday and Friday.

In the cities, however, there are large schools with many classes and many teachers. As a general proposition each teacher has but one class to which he attends, and in consequence has opportunity to spend more time with each child. The average number of minutes devoted each week in fifty American cities to each of the several subjects is given in the following table. The amount of time given in the one- and four-room schools quoted is also given that a comparison may be made of the relative educational opportunities afforded by the different types of schools.

TABLE VI[1]

Time in Minutes per Week devoted to Varied Subjects in Three Types of Elementary Schools

Subject.	First Grade.			Second Grade.		
	1-room.	4-room.	City.	1-room.	4-room.	City.
Opening exercises	75	100	59	75	100	59
Reading	100	250	414	100	150	366
Language	50	300	116	50	250	122
Spelling	—	50	83	—	50	102
Penmanship	—	100	79	—	100	91
Arithmetic	50	100	91	50	175	148
Geography	—	—	24	—	—	11
History	—	—	41	—	—	48
Science	—	100	56	—	—	63
Drawing	—	—	152	—	—	83
Music	75	—	69	75	—	130
Manual training	—	—	64	—	—	71
Physical training	—	—	70	—	—	63
	Third Grade.			Fourth Grade.		
Opening exercises	75	75	59	75	75	54
Reading	100	200	294	75	200	234
Spelling	75	125	112	75	125	104
Language	50	75	145	37·5	100	164
Penmanship	—	100	81	—	100	83
Arithmetic	25	150	203	50	150	230
Geography	—	37·5	77	37·5	125	128
History	—	—	54	—	—	86
Science	—	37·5	61	37·5	—	56
Drawing	—	—	85	—	—	83
Music	75	—	71	75	—	73
Manual training	—	—	61	—	—	69
Physical training	—	—	61	—	—	61

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[1] Data secured and retabulated in minutes per week from *14th Yearbook*, National Society for the Study of Education, Part I. pp. 26, 27.

Table VI—(*continued*)

Subject.	Fifth Grade.			Sixth Grade.		
	1-room.	4-room.	City.	1-room.	4-room.	City.
Opening exercises	75	100	50	75	100	48
Reading	50	125	198	—	100	180
Language	37.5	100	179	—	100	182
Spelling	75	50	92	75	50	88
Penmanship	—	50	77	—	50	71
Arithmetic	75	150	223	75	150	226
Geography	75	150	158	—	125	165
History	—	—	104	—	100	110
Drawing	—	50	77	—	50	77
Science	—	125	53	—	—	61
Manual training	—	—	77	—	—	86
Physical training	—	—	58	—	—	61
Music	75	—	69	75	—	69
	Seventh Grade.			Eighth Grade.		
Opening exercises	75	50	48	75	50	48
Reading	—	100	150	—	100	150
Language	37.5	100	204	37.5	100	220
Spelling	75	75	81	75	100	79
Penmanship	—	75	60	—	75	56
Arithmetic	100	100	217	100	100	220
Geography	—	125	152	—	20	113
History	100	100	140	100	100	180
Science	37.5	140	69	37.5	190	86
Drawing	—	—	77	—	—	75
Manual training	—	—	110	—	—	114
Physical training	—	—	58	—	—	60
Music	75	—	69	75	—	68

Note.—" 1-room " and " 4-room " data refer to the particular schools the daily programme of which is given above. The data for the " city " school is the average time per week taken from a table by Prof. Holmes of Harvard, giving the averages of fifty cities in the United States. The data for the one- and four-room schools are accurate only for the schools given. The data for the " city " schools may be considered typical.

The data in regard to the cost of elementary education in the United States are scattered and difficult to find. We know that a sum of approximately $457,386,423.00 was spent in 1913, a total of $26.13 per pupil enrolled. Data in regard to cities above 10,000 in population are easy to secure. Both the total cost of elementary schools (aside from permanent improvements) and the average daily attendance are given in the Reports of the United States Commissioner of Education. For the consolidated and rural schools such data are harder to find. The annual cost per pupil in attendance for the year 1913-14 in certain American cities is given in the following table. Nine cities were picked at random in each group, three each from the eastern, western, and southern sections of the country. The data are to be considered suggestive only, not as typical of all urban conditions.

TABLE VII

Cost per Pupil in Attendance in Certain Cities in the United States, 1913–14

City			Total expenditure excepting permanent improvements.	Average daily attendance.	Cost per pupil.
Over 100,000 population	East	New York City	$28,410,543	619,717	$45.84
		Boston, Mass.	3,705,510	83,678	44.28
		Detroit, Mich.	2,026,886	51,580	39.29
	West	Kansas City, Mo.	1,059,785	28,897	36.67
		San Francisco, Cal.	1,609,111	38,485	41.81
		Denver, Colo.	958,596	24,405	39.28
	South	Nashville, Tenn.	371,252	13,477	27.54
		Atlanta, Ga.	553,950	19,883	27.75
		Richmond, Va.	373,341	13,956	26.75
25,000–100,000 population	East	Mt. Vernon, N.Y.	196,653	5,014	39.21
		Wilkes-Barre, Pa.	275,443	8,530	32.28
		Canton, Ohio	193,073	6,871	28.09
	West	St. Joseph, Mo.	278,226	8,475	32.82
		Salt Lake City, Utah	599,161	15,495	38.66
		Tacoma, Wash.	361,001	9,582	37.67
	South	Charleston, S.C.	89,009	4,334	20.54
		Houston, Texas	376,889	9,653	38.83
		Chattanooga, Tenn.	103,590	5,998	17.43
10,000–25,000 population	East	Bristol, Conn.	53,449	1,956	27.32
		Ithaca, N.Y.	50,344	1,560	32.26
		Hackensack, N.J.	131,024	2,350	55.69
	West	Boise, Idaho	109,753	2,327	47.16
		Fresno, Cal.	206,920	5,418	38.18
		Alton, Ill.	71,282	2,346	30.38
	South	Baton Rouge, La.	19,492	1,508	12.92
		Owensboro, Ky.	37,487	1,750	21.42
		Marshall, Texas	27,959	1,521	18.38

The following data from the schools of Kansas are provided that the reader, in the absence of extended data, may have a notion of the relative costs of the other types of elementary schools:

TABLE VIII[1]

Data Fundamental to Costs in Various Types of Schools in Kansas, 1911–12

Type of school.	Average enrolment per teacher.	Average daily attendance per teacher.	Average salary of teacher per month.	Average cost per month per child in attendance.
One-teacher	21	15	$52.11	$4.27
Two-teacher	35	27	60.20	3.16
Small city	43	33	67.50	2.42
Large city	42	35	75.31	2.90

This indicates that the rural school is the most expensive, certainly by far the most expensive in proportion to the advantages given, notwithstanding the fact that the outlay is smaller. It is due to the small enrolment and the poor attendance. The two-teacher school is less expensive and the small city school less expensive still. The city school, despite a larger number of pupils and good attendance, costs a little more, due to the better teachers there employed.

Certification of Elementary Teachers.—Just as in other matters, there are wide variations in the requirements put upon candidates for teaching positions in the various states. Without exception, no person is allowed to teach in a public school without a licence or certificate or permit to teach from some constituted authority. But the requirements for this certificate vary from the passing of an examination set by the state superintendent and uniform throughout the state, such as is found in Tennessee, Alabama, or Arizona, to a plan where each small unit sets its own standards, as is the case in South Carolina, Connecticut, and Massachusetts. It is beyond the province of this article to describe the certification plan of each state in detail. At the risk of vagueness, therefore, a few cases will be treated, more or less typical of the general conditions.

Under the *town system*, the power to examine and certificate teachers is placed in the hands of the lay officials of the local district. This is but one of the many duties of the "school committee" in Massachusetts. Among many other things this committee is required to—

> ". . . select and contract with teachers; examine teachers, or accept in lieu of examination diplomas of graduates of state normal schools. A certificate of qualification shall be filed by every public-school teacher with the proper official of a city or a town before such teacher shall receive any wages from such a city or town." [2]

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[1] Kansas, p. 76.

[2] U.S. Bureau of Education, 1915, *Bul.* 47, pp. 134–5.

This is the lowest form of certification, a survival from colonial times, and where it remains is being rapidly supplanted.

Under the *county system*, the power of examining and certificating teachers is placed in the hands of the county board of education or the county superintendent of schools. For instance, in South Carolina the county board of education—

> "shall examine all candidates to teach and shall issue certificates therefor; certificates valid for two years may be revoked for cause or renewed without examination; such issuance, revocation, or renewal of certificates shall be under regulation of the state board of education; no examination shall be required of graduates of approved institutions of higher learning." [1]

This system has had a tendency to perpetuate low standards in the teaching profession. It has allowed unambitious counties to keep poor teachers to foster lack of ambition in coming generations. A certificate in one county is not generally good in other counties. It has thus prevented good teachers from moving to better positions, while it has raised a protective tariff in favour of home products and poor teaching.

In consequence most of the states have introduced modifications of this system. In the *modified county system* the examination for candidates for teaching positions is still given under the direction of the county officials, *but the examination itself is set and prepared by state officials*. For instance, in Georgia—

> "the county superintendent of schools shall examine all applicants for teachers' licences. Applicants for licence to teach in the schools shall be examined in spelling, reading, writing, English grammar, geography, arithmetic, theory and practice of teaching, and physiology and hygiene. State superintendent shall fix date of examination to be held throughout the state; he shall prepare questions and county superintendent shall grade papers under instruction from state superintendent. No examination shall be held at other time than that designated by state superintendent, unless county board of education shall declare an emergency; for such special examination county superintendent shall prepare questions; licence shall be valid only until next regular examination and in county where issued." [2]

This type of certification is very common, being found in Colorado, Florida, Georgia, Idaho, Indiana, Kentucky, Kansas, Louisiana, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, Ohio, Oklahoma, South Dakota, Texas, Utah, Wyoming, and Michigan. In the latter state, examinations taken in one county may be forwarded to another for grading if certification is desired in that county. Many of the states, while having standards for the state as a whole, allow county authorities in time of need to grant "temporary certificates" for short periods of time. Many of the states grant special recognition to graduates of recognised institutions; while cities with greater wealth and higher standards set special examinations and qualifications in advance of the state as a whole.

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[1] U.S. Bureau of Education, 1915, *Bul.* 47, p. 81.

[2] *Ibid.* p. 380.

In the *state system* of certification all authority for the certification of teachers is put in the hands of a central board of examiners with power to examine and certificate. No local authority may employ a teacher who has failed to meet the standards set by the state as a whole. Thorough-going state systems of certification are found in Alabama, Arizona, Iowa, Maine, New Jersey, New Mexico, New York, North Dakota, Oregon, Rhode Island, Tennessee, Vermont, Washington, and West Virginia.

If there be any such thing as a typical scheme of certification in the United States it is the county system combined with the state system. The county still retains the power of certificating beginning teachers, while the state grants advanced certificates to teachers whose experience is successful and whose studies are more protracted and who have pursued further work. This is natural when one considers the past. The states in the union are relatively new. The west has been built up within the last five decades, and in the same time the south has been recovering from the effects of the Civil War which impoverished it of men and money. Normal schools have been few. The facilities for turning out trained teachers have been unequal to the demand; and, as a result, the states were confronted with the alternative of either closing the schools or putting up with poor teachers. The only practical plan has been to accept untrained teachers and in every way possible to provide facilities for training and study. To further this, varying grades of certificates have been provided, ranging from low grade ones, requiring but little training and no experience and of short duration, to higher ones of longer terms, requiring extended study and experience. Washington has provided the following grades of certificates:

> *Third-Grade Common-School Certificate.*—Applicant shall pass examination in reading, grammar, penmanship, and punctuation, history of United States, geography, arithmetic, physiology and hygiene, theory and art of teaching, orthography, and Washington State manual; valid for two years; if holder attends accredited institution of higher learning for one year he shall, upon application, receive a second-grade certificate.
>
> *Second-Grade Common-School Certificate.*—Applicant shall have credits for same subjects as for third-grade certificate and shall take examination in music; said certificate shall be valid for two years, and may be renewed if holder has attended an institution of higher

learning one semester or accredited summer school for six weeks, or has taught sixteen months.

First-Grade Primary Certificate.—Applicant must have taught forty-five months in primary grades, have credits for subjects required of second-grade certificate, and must pass examination in nature study, drawing, literature, and physical geography; two other subjects may be accepted in the place of two of the above; valid for five years in primary schools only and may be renewed if holder has attended an institution of higher learning for one year or has taught for not less than twenty-four months under such certificate.

First-Grade Certificate.—Applicant must have taught at least nine months, and shall have credit, in addition to subjects required for second-grade certificate, physics, English literature, algebra, and physical geography (two subjects may be varied); valid for five years, and may be renewed in same manner as above.

Professional Certificate.—Applicant shall meet all requirements of first-grade certificate; have taught successfully at least twenty-four months, at least eight months within the state; shall pass examination in plane geometry, geology, botany, zoology, and civil government (substitutes will be accepted for any or all subjects); may be renewed in same manner as first-grade certificate.

Permanent Certificate.—Applicant must be a holder of one of the three certificates (next above); must have taught not less than seventy-two months, nor less than thirty-six months within state, nor less than eighteen months subsequent to the granting of last certificate; issued on endorsement of county superintendent, valid for life.

Life Certificate.—Must have taught forty-five months, not less than twenty-seven within the state; must have credit for professional certificate and shall pass examinations in psychology, history of education, bookkeeping, composition, general history (state board may accept other subjects); valid for life.

In summarising the situation several years ago in the *Cyclopedia of Education*, Cubberley says:

> "The great diversity of requirements for certificates in the different states, and the general unwillingness of the various states to accept equivalents of training, are two of the most marked characteristics of our educational system. A good teacher to-day is unnecessarily hampered in his ability to move about, not only from one state to another, but from county to county. Many of these restrictions have no educational significance. . . . The $1 fee so commonly charged teachers for each trial at the examination and commonly used for the institute fund, and the *per diem* paid to the county superintendent or the examiners so long as they keep busy, are serious temptations to these officials to stand in the way of a better and more intelligent system of certification. In fourteen states it is impossible to enter the teaching profession except by passing an examination. No amount of training in any kind of a school or college serves to make one able to enter the work. The graduates of the normal school are placed on a par with the 'graduates' of the county examination. In about one-fourth of the states there is no recognition of certificates from one county to another. . . . In nineteen states absolutely no recognition is given to any kind of a diploma or credential from any other state."[1]

For the country as a whole, we find experienced teachers fairly well trained in cities and in prosperous and ambitious rural districts. But in the vast majority of the elementary schools, in the rural districts, we may expect to find the minimum requirements but little exceeded. Such minimum requirements are as follows:

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[1] Monroe, *Cyclopedia of Education*, i. pp. 561–2.

TABLE IX

Minimum Requirements for Teachers' Certificates in the Various States, 1915[1]

State.	Duration of certificate.	Minimum age.	Exam.	Remarks.
Alabama	2 years	—	75 per cent. on exam.	
Arizona	2 years	18	Examination	
Arkansas	6 months	—	,,	
California	6 years	—	,,	
Colorado	9 months	18	,,	Must have 6 weeks in normal or institute.
Connecticut	—	—	,,	
Delaware	—	—	Exam. by co. official	
Florida	2 years	—	60 per cent. average	
Georgia	1 year	—	State exam.	In emergency, applicant may pass local examination, good until next regular exam.
Idaho	1 year	18	Examination	Must have 6 weeks' professional training.
Illinois	1 year	—	,,	May be issued after 2 yrs. training in normal school or 1 yr. if applicant has graduated from 10th grade.
Indiana	1 year	—	,,	
Iowa	1 year	—	,,	
Kansas	1 year	18	75 per cent. on exam.	
Kentucky	2 years	18	,, ,,	
Louisiana	1 year	—	Examination	
Maine	—	17	—	Must be a graduate of a 4-yr. high school.
Maryland	6 months	Male 19 Female 18	Examination	5 weeks' special pedagogic training required. May be renewed for 5 yrs. after successful experience.
Michigan	1 year	—	,,	
Minnesota	1 year	17	,,	
Mississippi	1 year	17	60 per cent. on exam.	
Missouri	1 year	—	Examination	
Montana	Until next exam.	—	60 per cent. on exam.	
Nebraska	1 year	—	70 per cent. on exam.	

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[1] Data gathered from *Bul.* U.S. Bureau of Education, 1915, No. 47.

TABLE IX—(*continued*)

State.	Duration of certificate.	Minimum age.	Exam.	Remarks.
Nevada	2 years	—	70 per cent. on exam.	
N. Mexico	1 year	—	Examination	Must have attended a summer school or teachers' institute within 12 months.
New York	1 year	18	,,	Must be a graduate of a normal school or of a 4-yr. high school and 2 yrs. professional training.
N. Carolina	1 year	—	,,	
N. Dakota	2 years	—	,,	
Ohio	1 year	18	,,	Shall have had one year of high-school work and after 1920 2 yrs. After Jan. 1, 1915, shall have had 6 weeks' professional training; 1916, 12 wks.; 1917, 18 wks.; 1918, 24 wks.; 1919, 30 wks.; and 1920, 36 wks.
Oklahoma	1 year	18	75 per cent. on exam.	
Oregon	1 year	18	,, ,,	Shall have had 2 yrs. high school, and elementary-teachers' training course.
Pennsylvania	1 year	—	Examination	
Rhode Island	—	—	—	
S. Carolina	2 years	—	Examination	
S. Dakota	1 year	18	,,	
Tennessee	2 years	18	,,	
Texas	4 years	—	75 per cent. on exam.	
Utah	1 year	18	Examination	Shall be 4-yr. high-school graduate.
Vermont	1 year	17	,,	
Virginia	—	—	,,	
Washington	2 years	18	,,	
W. Virginia	1 year	17	70 per cent. on exam.	
Wisconsin	1 year	—	Examination	Shall have completed 8 grades and two additional yrs., one in teachers' professional studies.
Wyoming	1 year	17	Examination or graduation from a 4-yr. high sch.	

Practically every state requires an examination in certain subjects, rarely subjects beyond those which the candidate expects to teach. There is a variation in the grade required for passing, the type of certificate often depending upon this. Of course, there is such wide variation in marking, even among experts, that this distinction amounts to little. The following examinations, selected from those asked of candidates for teaching positions in Tennessee, May 14 and 15, 1914, are given to illustrate the type of examination:

SPELLING

Time, 20 minutes.

A member of the examining board will pronounce the words to those being examined. Each word spelled is worth two points.

1. cellar
2. longitude
3. satin
4. mechanic
5. machinist
6. syllable
7. cipher
8. bazaar
9. grandeur
10. fugitive
11. cashier
12. gender
13. masculine
14. gymnasium
15. antecedent
16. intelligent
17. opportunity
18. untiring
19. singeing
20. opinion
21. excel
22. compel
23. wrap
24. wrapper
25. facility
26. defer
27. commerce
28. fertility
29. implements
30. arithmetic
31. grammar
32. illustrate
33. scenery
34. campaign
35. Briceville (name of town)
36. Brooklyn (name of city)
37. succeed
38. precede
39. veracity
40. bachelor
41. believe
42. receive
43. routine
44. partition
45. morsel
46. volume
47. gesture
48. overseer
49. census
50. desist

ARITHMETIC

Time, 1 hour and 15 minutes.

1. (*a*) Find the L.C.M. of 21, 28, 36, 42.
(*b*) Find the G.C.D. of 42, 70, 98.

2. Multiply 4.0203 by .0604. Divide .40443 by 1.7.

3. A farmer bought a team of horses and farming tools which cost him $840. He paid two-fifths as much for the tools as he did for the horses. How much did the tools cost? The horses?

4. How many feet of lumber in 32 pieces 8 in. × 6 in. × 16 ft.?

5. C invested $2000 in a stock company with A and B. C's stock was 25 per cent. of the capital stock. Find the capital stock.

6. A farmer sold a herd of cattle for $4000 at a loss of 12½ per cent. What did the cattle cost the farmer?

7. Compute the simple interest on $2130 for 2 years, 3 months, and 24 days at 6 per cent.; at 4 per cent.

8. A commission merchant sold $2400 worth of apples at 2 per cent. commission. Find his commission.

9. A foreign cattle merchant sent a commission merchant $3600 with which to buy a shipload of "export" cattle. After deducting his commission at 3 per cent. how much did he expend for cattle?

10 (*a*) At $65 per acre find the cost of a circular field whose diameter is 42 rods.

(*b*) How many gallons of water will a cistern hold if its diameter is 4.6 ft. and its depth 14 ft.?

UNITED STATES HISTORY

Time, 1 hour and 15 minutes.

1. What nations were active in explorations and what sections of the country did each claim?

2. Name the inter-colonial wars and tell the lessons that the colonists learned from them.

3. Name some compromises made concerning slavery.

4. Give how and when territory has been added to the United States since the Revolutionary War.

5. Name three wars in which the United States has been engaged and state the causes of each.

6. Tell about the Mexico situation and give facts leading up to it.

7. Name five statesmen, four inventors, and one educator that have helped develop national civilisation.

8. (*a*) What recent amendments have been made to the constitution?

(*b*) What two great measures have recently been passed by Congress?

9. How many congressional districts has Tennessee? In what district do you live and who is your representative in Congress?

10. How many departments has our constitution? What state officer, what city officer, and what county officer corresponds to the President?

GEOGRAPHY

Time, 1 hour and 15 minutes.

1. How does climate affect a place?

2. Define longitude and latitude. What is meant by the term "meridian"?

3. How many zones are there? Name them. In which do we live?

4. Name and locate the largest desert in the world and tell what river flows northward across it.

5. From North America what direction is South America? The West Indies? The Philippine Islands?

6. What line divides the earth into northern and southern hemispheres?

7. Name five important sea-coast harbours and five important river harbours in the United States.

8. What part do harbours play in better commercialising our country?

9. What particular agricultural value has the Nile River?

10. (*a*) Account for New York and Chicago being large commercial centres.

(*b*) Why has Alaska become an interesting geographical study in recent years?

READING

Time, 1 hour and 15 minutes.

1. Name some methods of reading for beginners.

2. What is to be emphasised most in teaching reading?

3. Discuss the benefits of oral reading.

4. What should govern your selections and assignments?

5. What is interpretation? Interpret the following:

> "Full many a gem of purest ray serene,
> The dark, unfathomed caves of ocean bear;
> Full many a flower is born to blush unseen,
> And waste its sweetness on the desert air."

GRAMMAR

Time, 1 hour and 15 minutes.

1. Define verb, adverb, preposition, and syntax.
2. Decline I, lady, his.
3. Compare the following adjectives: able, many, and lonely.
4. Write sentences showing *that* used as three parts of speech.
5. Give the difference between an attribute complement and an objective complement, and illustrate each in sentences.
6. Write sentences showing three uses of the nominative case.
7. Diagram or analyse: By perfection is meant the full and harmonious development of the faculties.
8. Correct the following:
    Whom, do you suppose, will come?
    He has come a long way expressly for to try the examination.
    We can't wait no longer for them pupils.
    Between you and I that should never be.
    Sense, and not riches, win esteem.
9. Capitalise and punctuate the following:
    everything grows old everything passes away everything disappears
    apply yourself to study for it will redound to your honour
    apply yourself to study it will redound to your honour
10. Write a one-page composition on the character of Abraham Lincoln.

The typical teacher in the United States is not well trained. Dean L. D. Coffman, of the University of Minnesota, collected data from several thousand teachers, gathered at meetings of various sorts. Five thousand two hundred and fifteen answers were tabulated; and since every effort was made to make this sampling at random, it is thought that his results are fairly representative of actual conditions. Considering the central tendencies of his data, Dr. Coffman made the following generalisations:

> "The typical American male public-school teacher, assuming that he can be described in terms of medians previously referred to, but remembering that a median is a point about which individuals vary and that our hypothetical individual is as likely to be below as above it, is twenty-nine years of age, having begun teaching when he was almost twenty years of age after he had received but three or four years of training beyond the elementary school. In the nine years elapsing between the age he began teaching and his present age he has had seven years of experience and his salary at the present time is $489 a year. Both of his parents were living when he entered teaching and both speak the English language. They had an annual income from their farm of $700 which they were compelled to use to support themselves and their four or five children.
>
> "His first experience as a teacher was secured in the rural schools, where he remained for two years at a salary of $390 a year. He found it customary for rural-school teachers to have only three years of training beyond the elementary school, but in order for him to advance to a town-school position he had to get an additional year of training. He also found that in case he wished to become a city-school teacher that two more years of training or six in all beyond the elementary school were needed.

> "His salary increased rather regularly during the first six years of his experience, or until he was about twenty-six years of age. After that he found that age and experience played a rather insignificant part in determining his salary, but that training still afforded him a powerful leverage.
>
> "The typical American female teacher is twenty-four years of age, having entered teaching in the early part of her nineteenth year, when she had received but four years of training beyond the elementary schools. Her salary at her present age is $485 a year. She is native born of native-born parents, both of whom speak the English language. When she entered teaching both her parents were living and had an income of approximately $800 with which they were compelled to support themselves and their four or five children. The young woman early found the pressure both real and anticipated to earn her own way was very heavy. As teaching was regarded as a highly respectable calling, and as the transfer from the schoolroom as a student to it as a teacher was but a step, she decided upon teaching.
>
> "Her first experience as a teacher was gotten in the rural school where she remained but two years. If she went from there to a town school her promotion was based almost solely upon her experience, as no additional training was required by the officials of the town. If she wished to teach in a city school, she was compelled to secure at least one more year of training in all, but each additional year of training she found increased her salary.
>
> "So far she has profited each year of her brief experience by having her salary increased and this will probably be true for the next two years should she find it necessary to remain in teaching that long."[1]

It must be remembered that medians such as these represent the central tendencies of American teachers over a wide area; that the great majority of American teachers teach in rural schools where land values are low, taxes low, little money spent for schools, and standards traditional. They must not be taken as typical of teachers everywhere. City teachers are much better trained, and in general much better paid. Certain scattered data follow to show the training of teachers in varied types of elementary schools. The following show the situation in the state of Kansas:

TABLE X[2]

The Training of Teachers in Kansas, 1912–13

Number.	Not graduates but have attended high school.			Have completed one or more years in		Graduates of		
	1 year.	2 years.	3 years.	Normal school.	College.	High school.	Normal school.	College.
1 teacher .	625	647	382	—	—	2,980	—	238
2 teachers or more . .	—	—	—	222	143	861	237	101
Small cities .	—	—	—	124	73	670	189	68
Large cities .	—	—	—	147	60	471	148	115

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[1] L. D. Coffman, *The Social Composition of the Teaching Population*, pp. 79–81.

[2] Kansas, p. 77.

The three thousand white teachers in the state of Maryland, outside of the city of Baltimore, had the following training:

TABLE XI[1]

Preparation of White Elementary-School Teachers in Maryland, 1914–15

Kind of preparation.	Number.	Per cent.	Cumulative per cent.
Elementary school	391	12.7	12.7
Part high school	634	20.7	33.4
Standard high school	1,031	33.7	67.1
Part normal course	82	2.7	69.8
Non-standard normal course	614	20.0	89.8
Standard normal course	148	4.8	94.6
Part college	98	3.2	97.8
College	65	2.1	99.9

These are rather in advance of the medians shown by Dr. Coffman.

Proper data are not available to show the training of teachers in the elementary schools of the cities. Professor Bobbitt, of the School of Education of the University of Chicago, in his survey of the schools of San Antonio, Texas, gave the following table, showing the average years of training beyond the elementary school in certain cities, mostly from the middle west. The table is as follows:

TABLE XII[2]

Average Years of Training beyond Elementary School of Elementary-School Teachers in certain Cities

City.	Years of training beyond elementary school.	City.	Years of training beyond elementary school.
Gary, Ind.	7.0	Mishawaka, Ind.	5.2
Norfolk, Neb.	6.5	Noblesville, Ind.	4.9
Morgan Park, Ill.	6.3	Rockford, Ill.	4.9
Winnetka, Minn.	6.0	Joliet, Ill.	4.8
Booneville	5.8	South Bend, Ind.	4.8
Chicago, Ill.	5.8	Harvey, Ill.	4.7
Oak Park, Ill.	5.6	San Antonio, Tex.	4.6
Russell, Kas.	5.6	Mt. Carroll, Ill.	4.4
East Chicago, Ill.	5.5	Granite City, Ill.	4.3
Norfolk, Neb.	5.5	Junction City, Kansas	4.1
Aurora, Ill.	5.4	Mt. Olive, Ill.	3.3
Leavenworth, Kas.	5.4		

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[1] General Education Board, *Public Education in Maryland*, p. 60.

[2] Bobbitt, *San Antonio Survey*, p. 202.

Salaries of Elementary Teachers.—Carpenters in the United States receive an annual wage of $802, coal miners $600, factory workers $550, and labourers $513. The school teacher during the part of the year for which he is employed (see above, p. 26) receives $485. The average annual salaries[1] paid to elementary-school teachers in the various states in 1910 were as follows:

Cal.	$918	Penn.	$554	Kas.	$429	Ala.	$314
Ariz.	817	Idaho	549	La.	415	Iowa	302
N.Y.	813	Ohio	524	Del.	414	Tenn.	293
Mass.	757	Ind.	523	Neb.	411	Ark.	284
N.J.	731	Ore.	516	Okla.	408	Fla.	276
Wash.	692	Md.	515	Tex.	384	Va.	268
Mont.	645	Minn.	486	N.M.	348	Vt.	266
Colo.	642	Mich.	480	N.D.	339	Ga.	250
R.I.	607	Nev.	470	Ky.	337	Me.	244
Utah	592	Wis.	456	S.D.	329	S.C.	212
Ill.	588	Mo.	443	N.H.	328	Miss.	210
Conn.	561	Wyo.	439	W. Va.	323	N.C.	200

It must be remembered that in many of the states the period of employment represents but a small part of the year; and with many of the teachers, particularly the men, other employment is resorted to during the remaining time. These data include high-school teachers as well as elementary. High-school teachers are usually better paid. We can assume, therefore, that elementary-school teachers fall below rather than above these averages.

The following table giving the maximum, minimum, and average salaries paid to elementary-school teachers in the cities of the United States shows the influence of urban schools on the salaries of teachers:

TABLE XIII[2]

Minimum, Maximum, and Average Salaries paid to City Elementary-School Teachers, 1912–13.

Population of City.	Minimum.	Maximum.	Average.
250,000 and more	$203	$2,400	$1,018
100,000–250,000	195	1,960	791
50,000–100,000	270	1,500	688
25,000–50,000	200	1,710	641
10,000–25,000	38	1,500	602
5,000–10,000	104	1,350	533

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[1] Russell Sage Foundation.

[2] U.S. Bureau of Education, 1914, *Bul. No.* 16, pp. 10–12.

Tenure.—Teachers do not remain long in the rural schools. Salaries are poor and living conditions are not what they ought to be. There is a constant migration, particularly of good teachers, from the rural schools to those of the city. This was shown clearly in Dr. Coffman's study. Once in the city school, however, the tendency is for the teacher to remain. The average tenure of teachers in a few American cities is shown in the following table:

TABLE XIV[1]

Tenure of Teachers in Certain Cities in the United States

City.	Years taught in city.	City.	Years taught in city.
Chicago, Ill.	11.1	Noblesville, Ind.	5.5
Aurora, Ill.	9.1	Booneville, Mo.	5.4
Rockford, Ill.	9.1	Oak Park	5.2
Joliet, Ill.	8.7	De Kalb, Ill.	5.2
Leavenworth, Kas.	8.0	Harvey	5.0
Greensburg, Ind.	7.6	Granite City	4.2
Morgan Park, Ill.	7.0	South Bend, Ind.	4.0
Mishawaka, Ind.	6.6	East Chicago	4.0
Mt. Olive	6.6	San Antonio, Tex.	3.5
Russell, Kas.	6.5	Bonner Springs, Kas.	2.4
Winnetka	6.4	Norfolk, Neb.	2.9
Mt. Carroll	6.2	Maple Lake, Minn.	1.4
Junction City, Kas.	5.8		

Sex.—Women in the past few years have entered the teaching profession in increasing numbers. The percentage of men teachers in the public schools for certain years, which is given in the following table, shows this:

TABLE XV[2]

Percentage of Men Teachers in Schools in United States in various Years

Year	Percentage men teachers.	Year.	Percentage men teachers.
1870–71	41.0	1899–1900	29.9
1879–80	42.8	1909–10	21.1
1889–90	34.5	1912–13	20.0

Principals.—Nearly every elementary school in the United States is administered by a principal, usually more experienced than the teachers and appointed by higher authorities. In small schools the principal may also teach a portion of his time. In larger schools, not only is all his time taken up with administration, but it is often necessary for him to have assistants, supervisors, and other extra officers to help him in his work.

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[1] Bobbitt, *ibid.* p. 206.

[2] U.S. Bureau of Education, *Annual Report,* 1915.

The salaries paid to principals of elementary schools in the United States in 1913-14 are given in the following table:

TABLE XVI [1]

Minimum, Maximum, and Average Salaries paid to Elementary-School Principals, 1913–14

Size of city.	Minimum.	Maximum.	Average.
250,000 and more . .	$700	$3,500	$2,429
100,000–250,000 . .	391	2,500	1,419
50,000–100,000 . .	650	2,780	1,265
25,000–50,000 . .	450	3,000	1,092
10,000–25,000 . .	270	2,250	905
5,000–10,000 . .	293	2,300	735

VI. THE TRAINING OF ELEMENTARY-SCHOOL TEACHERS

The institution designed for the training of teachers for the elementary school in the United States is the *normal school*. Having its beginnings in special classes added to the regular work in the secondary schools of New York State in the third decade of the nineteenth century, the first separate normal school was founded in Massachusetts in 1838. Other states soon followed the lead, until to-day there are 167 normal schools and state teachers' colleges supported at public expense. These schools are distributed among the various states as follows: [2]

Ala . .	7	Kansas .	3	Nev. .	1	S.C. . .	2
Ariz. . .	2	Ky. .	3	N.H. .	2	S.D. . .	4
Ark. . .	2	La. .	1	N.J. .	3	Tenn. . .	4
California .	8	Maine .	6	N.M. .	2	Texas . .	5
Colo. . .	2	Md. .	3	New York .	11	Utah . .	1
Conn. . .	4	Mass. .	10	N.C. .	7	Vermont .	2
Fla. . .	1	Mich. .	4	N.D. .	4	Virginia .	5
Ga. . .	1	Minn. .	5	Ohio .	4	Washington .	3
Idaho . .	2	Miss. .	1	Okla. .	7	W. Va. .	7
Ill. . .	5	Mo. .	6	Ore. .	1	Wis. . .	9
Ind. . .	1	Mont. .	1	Pa. . .	13	Wyoming .	1
Iowa . .	1	Neb. .	4	R.I. . .	1	Delaware .	0

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[1] U.S. Bureau of Education, 1914, *Bul.* 16, pp. 10–12.

[2] Judd and Parker, *Problems Involved in Standardising State Normal Schools*, U.S. Bureau of Education, 1916, *Bul.* 12, p. 28.

Before high schools were widely established normal schools found it necessary to accept students who had graduated from the elementary school, and in a course, usually four years in length, combined high-school work with specific training for teaching. In many of the schools the first two years were spent in covering the work usually done in high school in four years, while the latter two years were devoted to professional training.

These schools are supported in most cases by direct appropriation from year to year by the state legislature. This has provided a varying income rarely commensurate with the needs of the schools. In some states a percentage of the taxes raised is turned over automatically to these schools, with supplementary appropriations from the legislature to take care of exceptional expenses.

Because of the small amount of funds provided these schools, the faculties have not been as well trained as was necessary, but in the last few years there is an increasing percentage of the faculty, who have not only graduated from standard four-year colleges, but who in addition have done graduate work, holding the degree of M.A. or Ph.D. Of fifty-six normal schools in the north central states advanced degrees were held by the following percentages of the faculty:[1]

Percentage of faculty.	Number of schools.		Percentage of faculty.	Number of schools.	
	Ph.D.	Master's degree.		Ph.D.	Master's degree.
0–9	22	3	50–59	—	4
10–19	8	6	60–69	—	—
20–29	2	5	70–79	—	1
30–39	—	7	80–89	—	—
40–49	—	6	90–100	—	—

Ninety-three per cent. of the faculty members of these schools had not received their doctor's degrees, while sixty-nine per cent. had not taken their master's degrees. Still, the progress made in the study of education in the colleges and universities, and the rise to prominence of such advanced schools for the training of teachers as Teachers' College, Columbia University, and the School of Education of the University of Chicago, have in recent years provided faculties for these normal schools excellently equipped for teaching teachers to teach.

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[1] Judd and Parker, *ibid.* p. 17. This table reads as follows: "22 schools in the north central states had between 1 per cent. and 9 per cent. of their faculties holders of the Ph.D. degree," etc.

The problem of this type of school is first to make its students thoroughly familiar with the subject matter which they will be required to teach, and, second, to acquaint them with the most efficient methods of presenting this material and of handling the manifold problems of a school. Where the normal school accepts graduates of the elementary school, its clear duty is to spend the major portion of its time teaching its pupils something which they in turn may teach. Where normal schools have been able to demand graduation from a high school (as is now the general tendency) as a prerequisite for admission, more of the time can be devoted to advanced work. The type of normal school which is becoming increasingly common is the one which, requiring graduation from a high school for admission, gives two further years of professional work. The requirements for graduation in the various subjects, expressed in percentages of the total requirements for graduation, in certain normal schools for two-year courses for high-school graduates are given in the following table:

TABLE XVII[1]

Percentage of Time devoted to Various Subjects in Certain Normal Schools in the United States

Subjects.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Education . .	10	14	15	22	16	16	17	29	34	19	12	28	22
Practice teaching .	16	27	26	14	8	15	8	15	13	6	23	4	12
History . .	6	4	5	6	8	6	4	8	2	—	8	—	8
Geography . .	5	5	5	6	8	3	4	4	3	—	5	—	3
English . .	10	14	13	14	20	14	13	7	6	6	10	10	17
Science . .	11	5	12	5	8	13	4	13	—	13	11	—	9
Mathematics .	6	5	5	6	8	11	4	11	4	13	5	—	6
Special methods in various subjects	9	—	—	—	—	—	—	4	—	—	—	4	—
Manual and fine arts . .	16	16	11	3	12	5	8	6	5	19	8	—	10
Music . .	7	5	3	—	4	5	—	3	5	—	4	2	6
Physical education	4	5	5	3	4	5	—	—	—	3	8	—	6
Electives . .	—	—	—	20	4	8	38	—	29	19	7	52	—

Schools: (1) Westfield, Mass. (2) Brockport, N.Y. (3) Newark, N.J. (4) Ohio, 4 schools. (5) Terre Haute, Ind. (6) De Kalb, Ill. (7) Ypsilanti, Mich. (8) Madison, S.D. (9) Springfield, S.D. (10) Hays, Kansas. (11) San Diego, Cal. (12) Johnson City, Tenn. (13) Harrisonburg, Va.

The professional work, classed under education, practice teaching, and special methods, commonly includes (1) the history of education; (2) psychology, and the applications of psychology to education; (3) special methods in teaching arithmetic, reading, history, etc.; (4) a course in "class-room management," dealing with problems of discipline, etc.; (5) general methods, the theory of the conduct of the recitation, and occasionally (6) a brief course on the philosophy or principles of teaching. In the past, and too often in the present, these courses have been taught by men and women who either have not been scientifically trained and do not know their subjects as they should, or by men and women who have been well trained in research and advanced work and who do not know how to apply their subjects so that young teachers can use them.

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[1] Judd and Parker, *ibid.* p. 85.

In the academic work the old normal school of twenty years ago used to give short courses, or "reviews" as they were called, of the various subjects in the elementary school. As the type of students and teachers has advanced this academic work has changed progressively through work equivalent to that of high schools to that of college grade. Such work is often better adapted to teachers than the academic work found in our colleges, since efforts are made to centre on more important topics, and as the teachers learn the subjects, suggestions are often made as to methods by which they in turn may present it.

Certain changes now going on in normal schools making for progress are worthy of mention. (1) Many of the states are increasing the requirements for certificates. Some of these, such as Ohio (see above, p. 44), are requiring increasing amounts of normal training even for beginning teachers. Others are stipulating such training for higher certificates (see above, p. 42, Washington). This has increased the attendance at the normal schools. (2) As was mentioned above, with the increase of public high schools the normal schools are beginning largely to confine their work to high-school graduates. This, together with the higher standing of the faculties, is tending to put the work of the normal school on a plane with college work. (3) Another modification making for progress is the increasing differentiation of work. Formerly all went through the same course, whether planning to teach in city or country, general work or special subjects. The normal schools are beginning to develop specialised courses for teachers in rural and in city schools, for teachers of the lower grades and teachers of the higher grades, for teachers of domestic science, agriculture, manual training, and the like. Some states are establishing special normal schools for the training of special teachers, such as the Boston Normal Art School, the North Dakota Normal and Industrial School, or the Kansas State Manual Training Normal School. Other states are assigning to certain of their normal schools special tasks in the training of special teachers. For instance, in Michigan the school at Ypsilanti, in addition to the general course, prepares teachers in the household arts, Mt. Pleasant, in addition to the regular course, prepares teachers of agriculture, and Kalamazoo prepares teachers in the manual arts and trades. The third type is for each school to provide as many specialised courses as it is possible for it to do. (4) The normal schools are realising more completely than ever the need for facilities for practice teaching if they are to help beginning teachers. Many of the schools have elementary schools on the ground with trained teachers in charge, where students may observe and, after preparation, take charge of the work of a class. With the increase of attendance it has been found almost impossible to maintain practice schools of sufficient size so that all prospective teachers may have extended practice in teaching. To overcome this many of the schools have arranged, in various ways, with adjacent city schools so that observation and, in a few cases, teaching may there be carried on.

In addition to the state normal schools many of the larger cities have established training schools of their own. For instance, in Cincinnati every candidate for a position as teacher in its schools must be a graduate of the University of Cincinnati and its college of education. This is probably the most advanced type in the country. The curriculum, faculty, and general conditions of these schools are very similar to those of the normals supported by the states.

In the normal departments of all types of public normal schools in the United States 89,537 students were enrolled in 1913, and 19,775 graduated. This does not approach even remotely the number required to furnish new recruits for the profession in that year. In consequence other forms of teacher training have been resorted to.

As was shown above, a great number of the elementary teachers never go beyond high school. Many of them stop to teach without even that much training. In consequence it has seemed advisable in many of the states, possibly as a temporary expedient, to establish teacher training courses in the high schools. Eleven states offer this work as a part of the high-school course: Arkansas, Iowa, Kansas, Maine, Missouri, Nebraska, North Carolina, Oregon, Vermont, Virginia, and Wisconsin. Five states have their training classes in so-called *county normal schools:* Ohio, New York, Michigan, Minnesota, and Wisconsin. Wisconsin appears in both classes. The following statement describes these types of work:

> "The course includes one year of attendance and work, which is made up of academic reviews of the elementary school subjects, courses in psychology, method, and management, illuminated by observation and practice; and special instruction, including method, in the content subjects recently introduced in the rural-school curriculum. *The high-school training class* is well illustrated in Minnesota, which this year had 134 classes at work. Minnesota began this plan in 1905 with thirteen classes. The classes enroll about ten students and are taught by carefully selected teachers, usually state normal-school graduates. The state supervision is by a woman who is a specialist in rural education. Teachers of these classes are paid up to $1000 and the supervisor is paid $2000. Minnesota's commission on education a year ago recommended increasing the annual state subsidy of these classes from $1000 to $3000, and salary increases up to $1200. The commission said that these classes were in the way of developing to a point where it will not be necessary for any rural school in the state to be without a trained teacher. A good illustration of the *county normal training class* is found in Michigan. In 1905 eight of the classes graduated eighty-four students and in 1915 there were 667 graduates from forty-seven classes. The work is, in general, the same as that of the high-school training classes. An observation and practice room, with pupils of several grades and varying ages under the immediate charge of a competent critic teacher, is a feature of the Michigan normal training classes. Salaries, preparation, and supervision of teachers are comparable with conditions in Minnesota. Principals of the classes are in many cases college and university graduates. The average academic advancement of students in these secondary-school types of normal work is about equivalent to that of the last high-school year. However, many students are enrolled in their third high-school year and there are also a considerable number who have finished the fourth year. Several states have also safeguarded progress from the future retardation which the rapid influx of teachers of only secondary-school preparation might involve by requiring a graduated increase in preparation." [1]

The Training of Teachers in Service.—The United States has a serious problem in training its future teachers. It is also confronted with the present practical problem of somehow changing the great mass of untrained teachers which it now has into teachers alive to modern educational problems, better trained, and more highly skilled. Numerous plans have been devised in order to accomplish this.

The system of graded certificates (see above) has tended to require teachers to do further study and often to attend normal schools and teachers' colleges. A few cities grant sabbatical years on half pay to their teachers for this purpose. Some counties increase salaries for summer school attendance. In 1913, 704 summer schools reported to the United States Bureau of Education, enrolling 218,794 students. A large number of these students were earnest teachers striving to make up deficiencies in their preparation.

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[1] U.S. Com. *Report*, 1915, i. p. 182.

It has become customary for counties and other small administrative units to gather the teachers together at intervals for study and instruction. These "institutes" are commonly a gathering of teachers who sit all day for four or five days and listen to addresses on abstract educational topics. They then go back to their schools and teach as they did before. The value of this has been questioned. Recently, however, a new type of institute has evolved. It is much like a summer school. It often lasts two, three, or more weeks; the teachers gather in small groups in class-rooms, and study and attend classes and recite just as they would in a normal school. In many schools the principals conduct classes of the teachers meeting weekly, in which teaching problems are discussed, and oftentimes books are studied and applied to the local situation. Some superintendents have quickened their force to further study and thought by turning over to them the programme of studies for extended report and revision.

In many of the states the teachers are required to read and report upon certain designated books, known as the State Reading Circle Books, which are designed to help them in their problems.

As a matter of fact, the real training of the teacher, if he has not been previously trained, rests with his principal or superintendent. The successful administrative officer, with his supervisors, does more to encourage further study and helps more successfully in the elimination of faults than any other agency. There is much poor teaching in the elementary schools of the United States, but there is much being done to eradicate it.

VII. SECONDARY EDUCATION

General Characteristics.—The secondary school in the United States, usually called the high school, is not designed for a particular class of people. It is the second step in the common educational scheme, receiving its pupils after they have finished the work of the elementary school and continuing their studies for four years. In its origin this school was preceded by the Latin grammar school and the academy, both of them designed to train the children of the upper classes for professional life or governmental service. The high school was established on these lines, particularly to bridge the gap between the public elementary school and the public university. In some sections this school is practically the creation of the last two decades. Where this is the case, as in the south, there are still many private schools of this sort preparing the children of the wealthier people for college. But the influence of the private secondary school is waning. Twenty-five years ago nearly forty per cent. of the secondary schools were run at private expense, educating over thirty per cent. of the students of this grade. To-day less than fifteen per cent. of the secondary schools are not supported at public expense, with only a little more than ten per cent. of the students. This article will not consider, therefore, the private schools.

TABLE XVIII[1]

High Schools of United States, Number of Teachers per School, Percentage of Students enrolled

Number of teachers.	Number of schools in U.S.	Percentage of high-school pupils enrolled.
1	2,175	1–3 36.6
2	1,807	
3	1,221	
4	640	4–6 22.1
5	380	
6	207	
7	172	7–10 9.1
8	87	
9	74	
10	48	
		1–10 67.8
11–20	243	13.5
21–30	90	7.7
31–40	27	3.6
41–50	5	2.0
51–60	4	1.2
61–70	2	1.0
71–80	3	0.8
81–90	1	0.7
91–100	—	—
101–109	2	0.8

The high school is usually centred in a city or small urban community. In 1913-14 there were 11,515 public high schools in the

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[1] Strayer and Thorndike, *Educational Administration*, pp. 168–9.

United States, 968 in cities of 8000 population and over, and 10,547 elsewhere. Of these, 3240 had courses less than full four years in length, 8275 giving the full four-year course; 57,909 instructors were employed, 25,047 men and 32,862 women; and 541,486 boys and 677,318 girls were enrolled as students. In the cities of 8000 and more, these schools are usually large with many students and many teachers. The average number of teachers was 23.7 per school. In the smaller urban communities, where by far the greater number of high schools are situated, the school is small, having an average of but 3.3 teachers in 1913.[1]

The data, gathered by Thorndike in 1904, are indicative of the size of these schools to-day. Later data are not available. Table XVIII. (p. 59) shows the conditions which prevailed at that time.

The secondary school in the United States is a small school, with few students, few teachers, and the great majority of students of this age receive their education in this type of school. In the larger cities, where some thirty per cent. of the high-school pupils are enrolled, we find large schools with large teaching staffs, splendidly equipped, and able to provide varied types of work.

Attendance.—With but a very few insignificant exceptions, attendance upon the high school is nowhere compulsory. Despite this fact 1,366,822 boys and girls were enrolled in public high schools in the United States in 1913. About twenty-eight per cent. of those who enter the first grade of the elementary school enter the high school. Hardly one-fourth of these graduate. The enrolment by years in 1913-14 was as follows:

Pupils in first year	560,397[2]	Pupils in third year	252,862
Pupils in second year	369,725	Pupils in fourth year	183,838

One of the most serious problems confronting secondary-school teachers is that of keeping the children in school after they have started. Nearly one-third drop out before completing the first year's work. The following table shows the number of children in the various years of the high school in each of the grand divisions of the United States, based upon the number in the first year:

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[1] Data from U.S. Commissioner of Education, *Annual Report*, 1914.
[2] *Ibid.*

TABLE XIX [1]

Enrolment in Public High Schools based upon that of First Year

Class.	U.S. as a whole.	North Atlantic states.	North central states.	South Atlantic states.	South central states.	Western states.
First	100	100	100	100	100	100
Second	65	66	68	63	64	61
Third	45	45	50	39	41	42
Fourth	33	33	36	21	25	32

Not only does the progress of pupils vary in certain sections, but the actual percentage of pupils enrolled in high schools differs widely in the various states. The following table shows the number of pupils enrolled in the high school for each 1000 enrolled in the elementary school. If there were 500 enrolled in the high school for 1000 in the elementary school, each would have the same percentage of the school population enrolled, per grade.

TABLE XX [2]

Pupils in High Schools in various States in 1910 *for each* 1000 *in Elementary Schools*

N.H.	118	Nevada	84	Mo.	58	Fla.	31
Cal.	114	Neb.	82	S.D.	58	Ga.	30
Mass.	110	New York	82	Del.	56	Ky.	30
Wash.	101	Ohio	81	Mont.	51	N.C.	29
Ore.	95	Kansas	79	Md.	47	Ala.	26
Ind.	95	Mich.	77	Texas	46	La.	26
Maine	93	Conn.	76	Idaho	45	Okla.	25
Vt.	90	Minn.	74	N.D.	44	Ariz.	25
Utah	90	Wis.	73	Va.	44	S.C.	24
Iowa	89	Ill.	69	Tenn.	40	Miss.	24
R.I.	84	N.J.	62	Wyo.	36	Ark.	23
Colo.	84	Pa.	58	N. Mex.	35	W. Va.	22

Student Population.—Despite the fact that relatively few American children pursue their work far enough to enter the high school, it is not a school solely for the children of wealthy men. In 1906 Van Denburg found the following occupations represented among the fathers of the children in the public high schools:

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[1] U.S. Commissioner of Education, *Report*, 1914.

[2] Russell Sage Foundation.

TABLE XXI [1]

Occupations of Parents of Pupils in New York City High Schools, 1906

Occupation.	Percentage in N.Y. City high schools.	Percentage in 1910 census.
Professional	4.4	2.3
Semi-professional	4.4	3.7
Artisans	18.1	16.4
Governmental employees	7.4	3.6
Clerical helpers	11.2	6.3
Office workers	12.8	7.9
Manufacture and trade	27.5	28.5
Printing trades	4.2	2.5
Personal service	4.9	7.7
Transportation	5.5	6.6
Factory labour	4.4	10.0

In Tennessee, in 1916, Russell and Roemer addressed a questionnaire to three groups of high-school students, those who had dropped out during the past three years, those who were in the senior class, and those who had graduated the previous year. The occupations of the parents of all three groups are given in the following table:

TABLE XXII [2]

Occupation of Parents of Seniors, Graduates, and those who dropped out in Sixty First-Class High Schools in Tennessee, 1916

Occupation.	Seniors.	Graduates.	Those who dropped out.
Professional	6.7	8.4	7.1
Semi-professional	5.1	3.0	0.9
Artisans	11.5	6.3	7.4
Governmental employees	4.2	2.0	4.5
Clerical helpers	1.6	2.0	4.5
Office workers	10.0	3.5	2.7
Manufacture and trade	13.0	18.6	9.3
Printing trades	0.6	—	0.6
Personal service	2.4	—	4.8
Transportation	4.2	5.0	3.0
Factory labour	0.9	0.3	0.3
Agriculture	40.0	51.0	54.9

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[1] Van Denburg, *The Elimination of Students in Public Secondary Schools,* p. 44.

[2] Russell and Roemer, *Unpublished Study.* Tentative results.

The occupations which the last two groups followed after leaving school were:

Occupation.	Boys.		Girls.	
	Graduates.	Non-graduates.	Graduates.	Non-graduates.
	%	%	%	%
Further study	34.8	11.1	35.1	17.4
Teaching	7.6	1.7	26.4	8.9
Housekeeping	—	—	7.4	26.0
At home	—	8.1	25.0	37.2
Farming	26.2	44.6	—	—
Government service	0.6	1.1	0.5	—
Clerks	17.4	11.3	5.6	3.9
Artisans	4.1	4.6	—	—
Salesmen	—	2.7	—	0.4
Transportation	3.5	6.4	0.5	1.2
Manufacture and trade	2.3	4.7	—	0.4
Personal service	0.6	0.1	0.5	2.3
Factory labour	—	8.1	—	2.3

The high school in the United States is truly democratic so far as the composition of its student body is concerned. Children come from all sorts and conditions of families, preparing for all types of occupations.

The Programme of Studies.—Despite the cosmopolitan character of the student body, and despite the varied aims and ambitions of the students, the singular fact remains that the programme of studies is almost uniform throughout the country. This is due not so much to regulation from higher authorities as to the origin of the school and to its limited facilities. When the high school was formed it took as its purpose the preparation of pupils for college. The colleges had taken as a basis for preparation the work of the private secondary schools of the east. No better illustration of this can be found than in the development of high schools in the south in the past fifteen years. From an almost total lack of high schools in this section in 1900, there are now high schools scattered all over the south. This progress, in great measure, has been due to the professors of secondary education in the state universities, who becoming educational evangelists spread the high-school doctrine. To-day their recommendations are most powerful in determining the character of these schools. Further, since most of the schools are small, a limited number of courses only can be given. This has resulted in the fact that college preparatory work is largely given, while the number of pupils preparing for college and professional life has steadily decreased.

The normal amount of time which the students in the United States spend in recitation is twenty forty-five-minute periods a week. This usually is divided between four branches of study, in which they recite once each day. A common type of small high-school programme is the following, taken from a small New England high school:

First Year
English composition and literature.
Ancient history.
Beginning Latin.
Algebra.

Second Year
English composition and literature.
Medieval history.
Cæsar, Books I.–IV.
Plane geometry.

Third Year
English literature.
Modern English history.
Cicero (six Orations) or
Beginning German.
Physics or bookkeeping.

Fourth Year
English composition.
American history and government.
Virgil I.–VI. or German.
Chemistry or
Typewriting and shorthand.

Kentucky recommends the following programme of studies for the small high school of four teachers (semesters being indicated by Roman numerals):

Subjects.	Number of hours per week.							
	I.	II.	III.	IV.	V.	VI.	VII.	VIII.
English	5	5	5	5	5	5	5	5
Algebra	5	5	5	—	—	—	—	—
Plane geometry	—	—	—	5	5	—	—	—
Solid geometry	—	—	—	—	—	*5	—	—
Foreign language	5	5	5	5	5	5	—	—
Physical geography	5	—	—	—	—	—	—	—
Biology	5	5	—	—	—	—	—	—
Music	2	2	2	2	—	—	—	—
Ancient history	—	—	5	5	—	—	—	—
Modern history	—	—	—	—	*5	*5	—	—
Chemistry	—	—	—	—	*5	*5	—	—
Drawing	—	—	—	—	2	2	2	2
U.S. history and civics	—	—	—	—	—	—	*5	*5
Physics	—	—	—	—	—	—	*5	*5
Domestic science	—	—	—	—	—	—	*5	*5
Agriculture and horticulture	—	—	—	—	—	—	*5	*5
Commercial studies	—	—	—	—	—	—	*5	*5
Arithmetic	—	—	—	—	—	—	*5	—
Trigonometry	—	—	—	—	—	—	—	*5
Maximum hours per semester	22	22	22	22	22	22	22	22

Starred courses are optional to the student.

During the period when the academies were entrusted with the major portion of the training of American boys and girls of high-school age, a great variety of courses was offered. This was due in part to the system by which they were administered. It was common to pay for the particular course which was taken, much as is done in the German universities. This was an *à la carte* system, and there was wide opportunity to elect the particular type of work which the student wanted. When the high school became a part of the public-school system, the *table d'hôte* plan was introduced. The public paid for the child's education out of public funds, he took what was given him, and on account of the small size of the schools a narrow programme was offered. At the same time the composition of the student population became more democratic and a wider range of courses was actually needed. Two plans have been devised to counteract this difficulty. One has been to offer many types of courses and to allow the pupils to elect the ones which they wish to take. The other has been to establish separate schools, each with a particular purpose in mind, designed to prepare its pupils for a specific field of endeavour. The former will be discussed here; the latter will be considered in a later section.

The following programme of studies taken from a high school in the middle west is an illustration of a wide elective system. The studies are given together with the number of years' work offered in each (in parentheses). Each student must complete fifteen years of work, four studies each year for three years and three studies for one year. Students may by permission take as many as five or as few as three in any half-year. Students to graduate must have two years of work in groups I. and II., one year's work in each of the other groups, and four years' work in some one group. Study cards must be made out each half-year and approved by the principal and the parent.

Group I.—Languages

Latin (4)
Greek (3)
German (4)
French (2)
Spanish (2)

Group II.—English

English composition (2)
English literature (4)
History of English and American literature (1)

Group III.—History

Ancient history (1)
Medieval history (1)
Modern English history (1)
General world history (1)
American history and government (1)

Group IV.—Mathematics

Algebra (1, 1½)
Geometry (1, 1½)
Trigonometry (½)
Surveying (½)
Business arithmetic (½)

Group V.—Science

Botany (1)
Zoology (1)
Biology (1)
Physical geography (1)
Physics (1)
Chemistry (1)
Geology (½)
Astronomy (½)

Group VI.—Miscellaneous

Music (2)
Freehand drawing (2)
Vocal expression (2)
Physical training (4)

Group VII.—Vocational

Mechanical and geometrical drawing (2)
Manual training (3)
Domestic science (2)
Household management (1)
Bookkeeping (1)
Business practice (1)
Shorthand (1)
Typewriting (1)

The elective system has met with much opposition. It is said to encourage poor work, thoughtless selection of subjects, and a dilettante attitude toward the work of the school. Many high schools have refused to allow their pupils to elect any work that they may see fit, and instead have arranged the work by courses leading to certain definite ends. The pupil instead of selecting his individual courses elects a course of study for four years, which he is then compelled to follow. The following programme of studies illustrates how a small high school offering relatively few courses has tried to group its work in this way. A larger school, of course, could make much more efficient distribution.

Subject.	Agriculture course.	Commerce course.	Home economics course.	Manual arts course.	Science, modern language course.	Latin course.
FIRST YEAR						
English, grammar, composition, literature . . .	5	5	5	5	5	5
Arithmetic (first half year) and algebra (second half year) .	5	5	5	5	5	5
Ancient history .	5	5	5	5	5	5
Biology . . .	5	5	5	5	5	5
Soil study . .	5	—	—	—	—	—
Home economics .	—	—	5	—	—	—
Manual training .	—	—	—	5	—	—
Beginner's Latin .	—	—	—	—	—	5
SECOND YEAR						
English, rhetoric, composition, literature .	5	5	5	5	5	5
Algebra . . .	5	5	5	5	5	5

Subject.	Agriculture course.	Commerce course.	Home economics course.	Manual arts course.	Science, modern language course.	Latin course.
SECOND YEAR—*cont.*						
Medieval and modern history	5	5	5	5	5	5
Botany (first half) and agriculture (second half)	5	—	—	—	—	—
Bookkeeping	—	5	—	—	—	—
Home economics	—	—	5	—	—	—
Manual training	—	—	—	5	—	—
Cæsar	—	—	—	—	—	5
THIRD YEAR						
English, rhetoric, composition, literature	5	5	5	5	5	5
Plane geometry	5	5	5	5	5	5
English history	—	*5	—	—	5	—
Chemistry	5	*5	5	5	5	—
Physical geography (first half) and agriculture (second half)	5	—	—	—	—	—
Shorthand	—	5	—	—	—	—
Home economics	—	—	5	—	—	—
Manual training	—	—	—	5	—	—
Cicero	—	—	—	—	—	5
French	5	—	—	—	5	5
FOURTH YEAR						
English	5	5	5	5	5	5
Advanced algebra	5	5	5	5	5	5
Physics	5	5	5	5	5	5
Agriculture, farm management, and accounting	5	—	—	—	—	—
Commercial law, bookkeeping, and shorthand	—	5	—	—	—	—
Home economics	—	—	5	—	—	—
Manual arts	—	—	—	5	—	—
French	*5	—	—	—	5	5
Virgil	—	—	—	—	—	5
American history and civics	*5	5	5	5	5	—

Pupils have choice between the courses marked with *.

In addition, all pupils are required to take work in spelling, writing, drawing, vocal music, and physical culture.

Subjects studied by High-School Pupils.—A good indication of the type of work done by students in the high schools in the United States is given in the following table. An effort was made to determine just what work each pupil was taking, and to secure an idea of the relative popularity of the various lines of work that are offered.

TABLE XXIII[1]

Students in Certain Studies in the Public High Schools in 1910, in Percentage

Study.	Rank.	Percentage of students enrolled.
Rhetoric	1	57.10
English literature	2	57.09
Algebra	3	56.85
History (not U.S.)	4	55.03
Latin	5	49.05
Geometry	6	30.87
German	7	23.69
Physical geography	8	19.34
Botany	9	16.83
Civil government	10	15.55
Physiology	11	15.32
Physics	12	14.61
French	13	9.90
Zoology	14	8.02
Chemistry	15	6.89
Agriculture	16	4.66
Home economics	17	3.78
Trigonometry	18	1.87
Geology	19	1.16
Psychology	20	0.96
Greek	21	0.75
Spanish	22	0.67
Astronomy	23	0.53

Cost.—For the education of pupils in the public high schools of the various states $64,159,952 were spent in 1913-14, an average of $56.54 per pupil enrolled. This is more than twice the cost of elementary education. The cost per pupil in attendance for the year 1913-14 for the same cities as were chosen to illustrate elementary school costs is given in Table XXIV. opposite.

Teachers.—High-school teachers in the United States are somewhat better trained than those of the elementary schools. Certain states in their laws regarding the certification of teachers require a special certificate for high-school teachers, and several others require a higher grade of certificate for secondary than for elementary school teachers. Twenty of the forty-eight states make such provisions in their laws. California, having the most advanced laws in this respect, requires graduation from a standard college (eight years beyond the elementary school) together with

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[1] U.S. Commissioner of Education, *Report*, 1911, vol. ii. p. xli.

TABLE XXIV

Cost per Pupil in Attendance in High Schools in Certain Cities in the United States, 1913–14

City.		Total expenditure except for permanent improvements.	Average daily attendance.	Cost per pupil.
Over 100,000 *population:*				
East	New York City	$4,734,578	43,643	$108.48
	Boston, Mass.	1,132,231	13,570	83.43
	Detroit, Mich.	489,483	5,594	87.50
West	Kansas City, Mo.	417,211	4,362	95.65
	San Francisco, Cal.	238,647	3,198	74.67
	Denver, Colo.	319,767	4,187	76.37
South	Nashville, Tenn.	72,535	1,325	54.89
	Atlanta, Ga.	82,000	1,334	61.46
	Richmond, Va.	91,658	1,843	49.73
25,000–100,000 *population:*				
East	Mt. Vernon, New York	61,433	836	73.49
	Quincy, Mass.	39,489	882	44.76
	Canton, Ohio	58,368	932	62.62
West	St. Joseph, Missouri	73,476	1,302	56.43
	Salt Lake City, Utah	138,619	960	144.39
	Tacoma, Washington	120,599	1,773	66.77
South	Charleston, S.C.	17,188	332	51.77
	Austin, Texas	36,661	725	50.58
	Chattanooga, Tenn.	21,141	457	46.26
10,000–25,000 *population:*				
East	Bristol, Conn.	14,113	268	52.66
	Ithaca, New York	29,050	505	57.72
	Hackensack, New Jersey	31,459	412	76.36
West	Boise, Idaho	65,711	813	80.82
	Fresno, California	63,839	783	84.07
	Alton, Ill.	16,653	442	37.67
South	Baton Rouge, La.	10,598	279	37.98
	Owensboro, Kentucky	17,184	397	43.28
	Marshall, Texas	14,616	331	44.13

an additional year of graduate work. Tennessee, requiring a special high-school certificate, allows any candidate who can pass the examination to teach in a high school. Such examinations are no more difficult than the examinations for graduation from the high school itself. The real situation in the United States as regards the training of high-school teachers can be summarised as follows: (1) Only a few states have adequate minimum standards. (2) Most of the states set no standard for high-school teachers in their law beyond graduation from the elementary school. (3) The result is that poor districts and small towns have poorly prepared teachers. (4) Large towns and cities have well-trained teachers so far as their academic training is concerned.

In Ohio, for instance, the state survey committee received data on the training of 939 high-school teachers who attended county teachers' institutes in 1913. Their training, compared with that of the teachers of Maryland, was as follows:

TABLE XXV

Training of High-School Teachers in Ohio and Maryland

	Ohio.[1]	Maryland.[2]
	%	%
College graduates	40.5	37.4
Some college training, but not graduates . .	24.8	20.7
High-school graduates, but not college graduates	15.5	13.1
Having some high-school training, but not graduates	15.0	5.1
Having no academic training above 8th grade .	3.3	0.7
Having less than 8 years' academic training .	0.9	—
Normal-school graduates	—	2.5
Having some normal work, but not graduates .	—	20.4

These conditions are typical of states which have given insufficient attention to the requirements of candidates for positions in high schools. In the cities, on the other hand, much better teachers are secured. The present standard for teachers in the better schools is at least graduation from standard four-year college. The average number of years' training beyond the elementary school in certain cities reported by Bobbitt for the high-school teachers was as follows:

TABLE XXVI[3]

Training of High-School Teachers in Certain Cities

Des Moines, Iowa . .	8.9 years	Elgin, Illinois . .	7.5 years
Peoria, Illinois . .	8.3 ,,	St. Joseph, Missouri .	7.2 ,,
Gary, Indiana . .	8.1 ,,	Leavenworth, Kas. .	7.0 ,,
Aurora, Illinois . .	8.1 ,,	Oklahoma City, Okla. .	7.0 ,,
Indianapolis, Indiana .	8.0 ,,	San Antonio, Texas .	6.5 ,,
Rockford, Illinois .	8.0 ,,	Kansas City, Kansas .	6.4 ,,

[1] Ohio State Survey Commission, *Report*, 1914, p. 57.

[2] General Education Board, p. 64.

[3] Bobbitt, p. 218.

Reporting for the country as a whole, Thorndike found that of 100 male teachers in the high school, 10 have had less than four years' training beyond the elementary school, 45 have had from four up to seven inclusive, 30 have had eight years, and 15 have had nine years or more. Of 100 women teaching in the public high schools, 6 or 7 have had less than four years beyond the elementary school, 40 or 41 have had from four to seven inclusive, 41 to 42 have had eight years, and 11 or 12 have had nine years or more.[1]

Salaries.—The salaries of men teachers in public high schools range from less than $300 to $3500. . . . Their median salary is $900; that is, of men engaged in public high-school work, there are as many who receive less than $900 as there are receiving more than $900. Of 100 such men, 5 receive less than $500, 51 receive from $500 up to $1000, 27 from $1000 up to $1500, 10 from $1500 up to $2000, and 7 from $2000 up. Fifty-three per cent. receive from $600 to $1000 inclusive. The salaries of women engaged in public high-school work range from less than $200 to the group $2500-2999. . . . The median salary is $650. Of 100 such women, 22 receive less than $500, 59 from $500 up to $1000, 14 from $1000 up to $1500, and 5, $1500 and over.

The average salary, together with the highest and lowest for the cities of the United States, in 1904 for men and women is given in the following table:

TABLE XXVII[2]

Salaries of Teachers in City High Schools, 1904

Size of city.	Number of teachers.	Highest individual.		Average.	Lowest individual.	
		Male.	Female.		Male.	Female.
1,000,000 and over	1,211	$3,500	$2,500	$1,615	$800	$550
200,000–1,000,000	1,547	3,060	2,040	1,230	444	450
100,000–200,000	1,073	2,300	2,000	1,044	450	200
50,000–100,000	876	2,500	1,500	981	500	360
30,000– 50,000	810	2,600	1,250	850	475	300
20,000– 30,000	820	2,800	1,320	798	450	360
15,000– 20,000	502	1,700	1,600	799	450	315
10,000– 15,000	701	1,750	1,200	709	360	270
8,000– 10,000	495	1,400	1,100	650	500	234

Conditions in 1914 are shown in the following table. Sex differences are not shown.

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[1] Strayer and Thorndike, pp. 113–31.

[2] Monroe, *Cyclopedia of Education,* vol. v. p. 509.

TABLE XXVIII[1]

Minimum, Maximum, and Average Salaries paid to High-School Teachers, 1913–14

Size of city.	Minimum.	Maximum.	Average.
250,000 and more .	$450	$3,150	$1,746
100,000–250,000 . .	480	2,400	1,216
50,000–100,000 . .	180	2,000	1,069
25,000– 50,000 . .	400	3,400	1,009
10,000– 25,000 . .	100	2,250	897
5,000– 10,000 . .	100	1,800	795

Tenure.—The number of years' experience in teaching for the group investigated by Thorndike varied from 0 to beyond 50. The median for male teachers was approximately 8, that is, as many male teachers had taught seven years or less as had taught nine years or more. For the female teachers this median was six.

The following table gives the experience of teaching of teachers in the public high schools:

TABLE XXIX[2]

Experience of Teachers in Public High Schools of the United States

Years of experience in teaching.	Percentage of teachers in public high schools.			
	Men.		Women.	
Less than 1 . .	2.9	25.8	5.5	38.6
1	5.2		6.8	
2	5.5		9.4	
3	6.0		9.0	
4	6.2		7.9	
5	7.7	29.9	7.9	28.7
6	6.3		6.7	
7	6.5		6.1	
8	6.3		4.8	
9	3.1		3.2	
10–14 . . .	20.4		15.1	
15–19 . . .	12.0		9.0	
20–24 . . .	5.9		5.1	
25–29 . . .	2.2		1.7	
30–34 . . .	1.7		1.5	
35 and over . .	1.4		0.4	

Principals.—Just as in the case of the elementary school, the administration of the high school is immediately in charge of the principal. As a general rule it is an office of considerable importance. In small country schools the principal teaches a few classes. In the larger schools there are assistant principals, heads of departments, supervisors, etc., to assist in running the school.

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[1] U.S. Bureau of Education, 1914, *Bul.* 16, pp. 10–12.

[2] Strayer and Thorndike, pp. 113–31.

The salaries of principals of high schools in the United States in 1913-14 are given in the following table:

TABLE XXX [1]

Minimum, Maximum, and Average Salaries paid to High-School Principals, 1913–14

Size of city.	Minimum.	Maximum.	Average.
250,000 and more . .	$1,700	$5,000	$3,565
100,000–250,000 . . .	1,480	3,900	2,772
50,000–100,000 . . .	990	3,500	2,477
25,000– 50,000 . . .	950	3,500	2,151
10,000– 25,000 . . .	675	3,000	1,673
5,000– 10,000 . . .	360	2,500	1,314

VIII. THE TRAINING OF SECONDARY-SCHOOL TEACHERS

Specific training for the task of teaching in the high schools of the United States is a development of the past few years, and where found it is an exception rather than the rule. The training commonly demanded is graduation from a four-year college, but even this, as was shown above, is not required everywhere. All that was demanded was a knowledge of certain subjects. Such college graduates found positions in small schools, where they taught many classes a day in several subjects. No practice teaching was provided. Almost no supervision was afforded. Little effort for further study was encouraged, and high-school teachers commonly settled down to make permanent any chance faults that found their way into their early teaching. And this is the case in the majority of high schools in the United States to-day.

California broke violently with the past when it demanded the equivalent of a master's degree with definite preparation in the science and art of teaching. A few other states to-day make equivalent requirements. Many cities set up standards as high as this.

The hope in the situation rests, however, with the greatly increased number of departments of education in our institutions of higher learning. Many of the state universities are putting their schools of education on a par with the schools of law, medicine, architecture, and agriculture. Several specialists are employed to develop this line of work. This, however, has been a comparatively recent development.

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[1] U.S. Bureau of Education, 1914, *Bul.* 16, pp. 10–12.

The professors in the universities did not encourage this specialisation. The prevailing attitude was that all that a prospective high-school teacher needed to know was his subject, and that once given that, he could teach it. No encouragement was given to the separate study of education or to practice in teaching. As a result, in some of the states the normal schools, often having more influence with the legislatures than the state university, secured larger appropriations, installed departments giving academic studies of college grade, and with these, together with their already rich facilities for professional work, set themselves to the task of attacking problems in secondary education. They installed practice high schools. They changed their names to teachers' colleges. This is particularly true in Colorado, Missouri, Michigan, and New York. Such action stimulated the universities to strengthen their departments of education, and many of them in self-defence have built large demonstration and practice high schools. The question as to where secondary teachers of the future will be trained is still unsettled. In the meantime there is work enough for all.

IX. TENDENCIES TOWARD THE EQUALISATION OF EDUCATIONAL OPPORTUNITY

The governmental experiment being tried by the United States of America rests upon the belief that the most efficient state is a democracy, where an alert, thinking people capable of meeting the situations of life upon the plane of reason is guided by leaders selected from and by that people on account of ability alone. In theory there is neither an hereditary class of leaders nor followers. No child is supposed to be limited by accidents of birth or environment. If he but have the ability he may aspire to the highest offices in the land.

Fundamental to the success of this experiment is widespread popular education. If the people are to become alert and intelligent, if proper leaders are to be secured, every American child must have the opportunity for such education as his abilities permit, and poverty at home or the lack of ambition of parents must not be allowed to interfere with his progress.

In a sense it is unfortunate that our schools were founded when another theory of the state prevailed. The elementary school, originally for the pauper or apprentice, and the high school, formerly the training school for the sons of the favoured for governmental service and professional life, have both become schools for all the people, free and open equally to rich and poor; and instead of running parallel to one another they have become mutually dependent one upon the other. In theory there is not one type of training for the rich, another for the poor. Every child, theoretically, has the same school to go to, the same opportunities to make of himself all that his abilities will permit.

Yet, as is clearly apparent from the previous discussion, grave inequalities of opportunity remain in our educational system. Children do not have equal chances. School terms vary; some sections have well-trained teachers, others poor; country children do not have opportunities equal to those of the city; the children of the south are not as well provided for as those of the east or west. The growing interest in matters of education, and the gradual assumption of authority over local units by the state and national governments, are making for greater uniformity. It is the purpose of this section of the chapter to discuss certain other tendencies toward the greater equalisation of educational opportunity so necessary to the success of a democratic government.

Tendencies toward the Correction of Inequalities due to a Uniform Curriculum

Up to the beginning of the twentieth century the major portion of the effort of educators in the United States was directed toward the provision of school facilities for all the people. Elementary schools were opened nearly everywhere, high schools were developed, better teachers secured, school terms lengthened, compulsory attendance regulations were put upon the statute books and enforced, and child labour laws enacted that children might not be prevented from attendance at school. Tuition fees had been largely abolished, and the American people were about to rest back contented with the thought that at last popular education for all had been provided and that opportunities for schooling were becoming more equal, when it was suddenly realised that such opportunities as there were, were not at all equal, that *equality of opportunity* had been confused with *identity of opportunity*. And indeed this is the case in most of the American schools to-day.

When the schools were founded the country had not passed through the Industrial Revolution. Girls were trained in the duties of a housewife in the home. Boys were trained for life on the farm through contact with their parents, and apprenticeship was the gateway for entrance into industry. The lower schools contented themselves with a meagre education suitable for all. The high schools on the other hand were founded with the express purpose of training boys and girls for the higher institutions of learning. Changes in social conditions have put a vastly increased burden on the schools. With the rise of manufactures, and the influx of workers to the cities, the home began to break down, girls no longer received training for homemaking from the mothers, many of whom were themselves at work in the factories. The boys no longer were able to learn their occupation from watching their fathers. Furthermore, the constantly increasing restrictions upon apprenticeship had made more difficult the entrance into industry by that path. The elementary school could no longer rest content with a narrow curriculum providing only the general elements common to all vocations. Specific vocational training was demanded. In a similar way the high school has had wider demands put upon it. The greatly increased number of boys and girls receiving training therein, and the greatly broadened field of occupations which its graduates are entering (see p. 63), have necessitated something in addition to the formal, classical, college-preparatory course. It has become necessary, therefore, to make more specific provisions for groups of pupils who are not adapted to mere book work and who need specific vocational preparation. Superintendent Spalding of Newton, Mass., illustrated the dangers of a uniform curriculum, such as was found in his system before 1905, in the diagram on p. 77.

The remedy for this situation lies in broadening the programme of studies, either within schools already established or by founding other schools, special in purpose and equipment. In most sections of the United States at least four lines of work must be covered. There must be specific preparation for homemaking, for industry, for agriculture, and for business and commerce. The smaller communities for a long time will have to content themselves with slight differentiation of work within the same schools and buildings as they now have. Larger cities and communities having more pupils and money may institute special schools to care for special groups.

Newton, Massachusetts, is a good illustration of what a medium

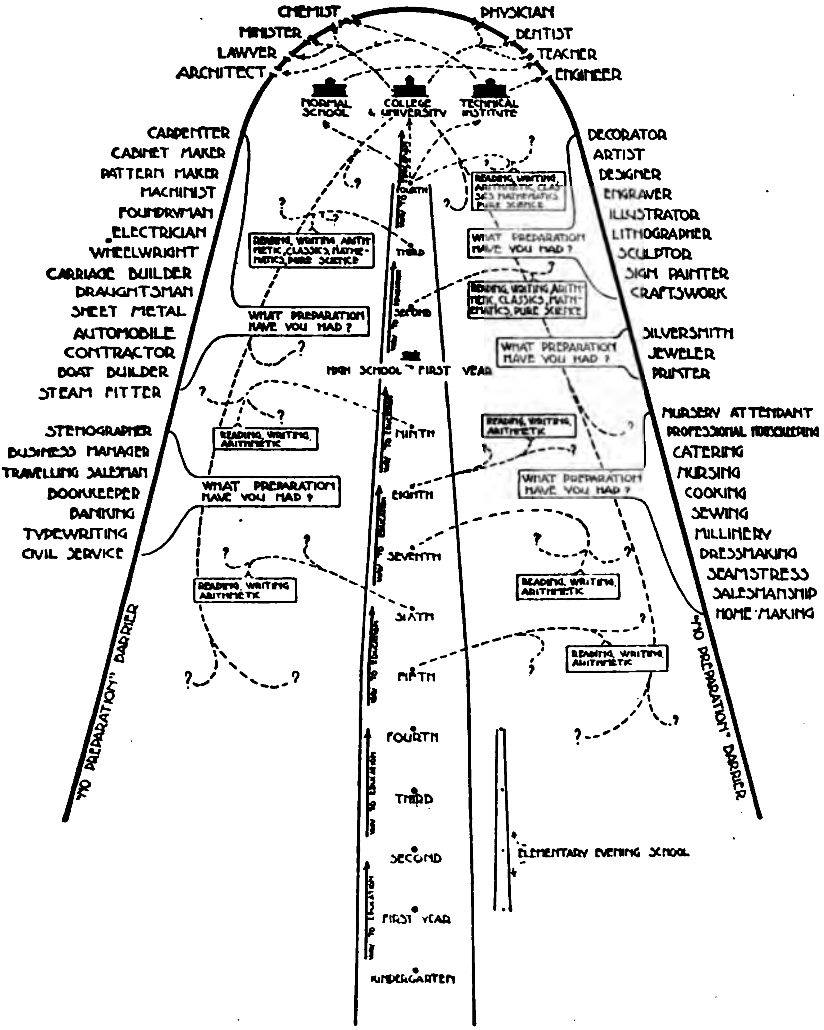

Diagram illustrating the dangers of a uniform curriculum.

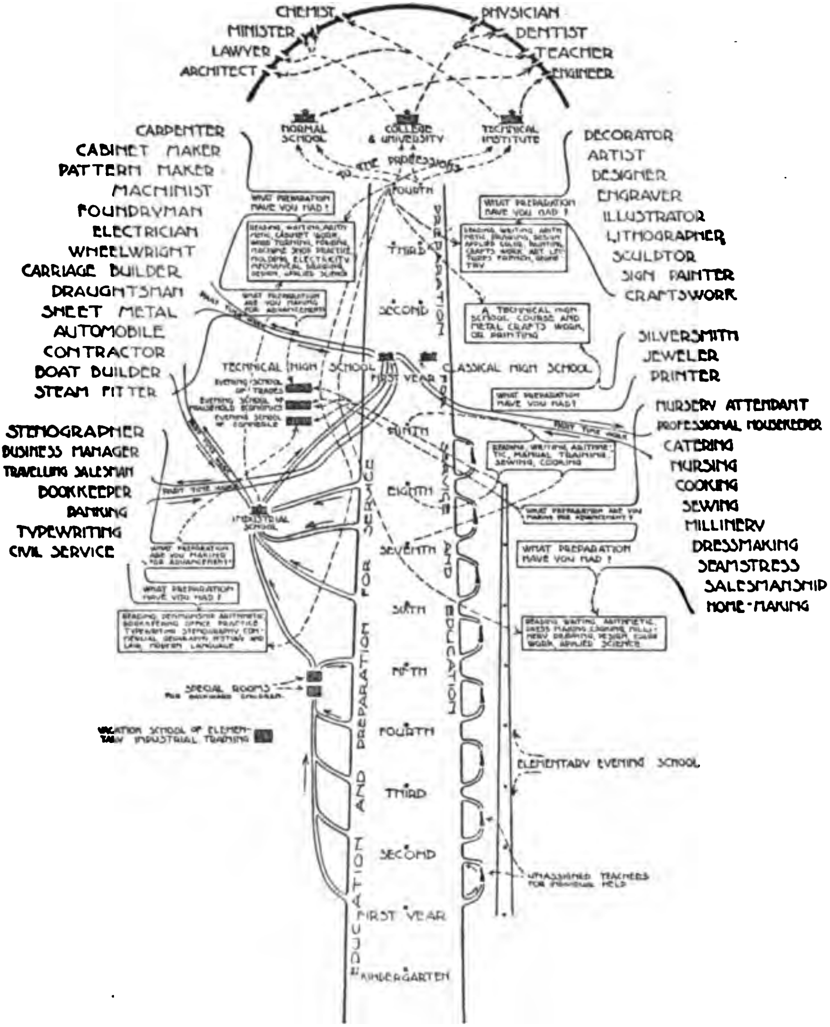
CHEMIST
MINISTER
LAWYER
ARCHITECT
PHYSICIAN
DENTIST
TEACHER
ENGINEER
NORMAL SCHOOL
COLLEGE & UNIVERSITY
TECHNICAL INSTITUTE
TO THE PROFESSIONS
CARPENTER
CABINET MAKER
PATTERN MAKER
MACHINIST
FOUNDRYMAN
ELECTRICIAN
WHEELWRIGHT
CARRIAGE BUILDER
DRAUGHTSMAN
SHEET METAL
AUTOMOBILE
CONTRACTOR
BOAT BUILDER
STEAM FITTER
STENOGRAPHER
BUSINESS MANAGER
TRAVELLING SALESMAN
BOOKKEEPER
BANKING
TYPEWRITING
CIVIL SERVICE
DECORATOR
ARTIST
DESIGNER
ENGRAVER
ILLUSTRATOR
LITHOGRAPHER
SCULPTOR
SIGN PAINTER
CRAFTSWORK
SILVERSMITH
JEWELER
PRINTER
NURSERY ATTENDANT
PROFESSIONAL HOUSEKEEPER
CATERING
NURSING
COOKING
SEWING
MILLINERY
DRESSMAKING
SEAMSTRESS
SALESMANSHIP
HOME-MAKING
WHAT PREPARATION HAVE YOU HAD?
READING, WRITING, ARITHMETIC, CABINET WORK, WOOD TURNING, FORGING, MACHINE SHOP PRACTICE, MOLDING, ELECTRICITY, MECHANICAL DRAWING, DESIGN, APPLIED SCIENCE
WHAT PREPARATION ARE YOU MAKING FOR ADVANCEMENT?
PART TIME WORK
WHAT PREPARATION HAVE YOU HAD?
READING, WRITING, ARITHMETIC, DRAWING, DESIGN, APPLIED COLOR, PAINTING, CRAFTS WORK, ART LITERATURE, FASHION, GEOMETRY
A TECHNICAL HIGH SCHOOL COURSE AND METAL CRAFTS WORK, OR PRINTING
TECHNICAL HIGH SCHOOL
CLASSICAL HIGH SCHOOL
EVENING SCHOOL OF TRADES
EVENING SCHOOL OF HOUSEHOLD ECONOMICS
EVENING SCHOOL OF COMMERCE
WHAT PREPARATION HAVE YOU HAD?
PART TIME WORK
READING, WRITING, ARITHMETIC, MANUAL TRAINING, SEWING, COOKING
PART TIME WORK
INDUSTRIAL SCHOOL
WHAT PREPARATION ARE YOU MAKING FOR ADVANCEMENT?
WHAT PREPARATION ARE YOU MAKING FOR ADVANCEMENT?
WHAT PREPARATION HAVE YOU HAD?
READING, PENMANSHIP, ARITHMETIC, BOOKKEEPING, OFFICE PRACTICE, TYPEWRITING, STENOGRAPHY, COMMERCIAL GEOGRAPHY, HISTORY AND LAW, MODERN LANGUAGE
WHAT PREPARATION HAVE YOU HAD?
READING, WRITING, ARITHMETIC, DRESS MAKING, COOKING, MILLINERY, DRAWING, DESIGN, COLOR WORK, APPLIED SCIENCE
SPECIAL ROOMS FOR BACKWARD CHILDREN
VACATION SCHOOL OF ELEMENTARY INDUSTRIAL TRAINING
ELEMENTARY EVENING SCHOOL
UNASSIGNED TEACHERS FOR INDIVIDUAL HELP
FOURTH
THIRD
SECOND
FIRST YEAR
NINTH
EIGHTH
SEVENTH
SIXTH
FIFTH
FOURTH
THIRD
SECOND
FIRST YEAR
KINDERGARTEN
EDUCATION AND PREPARATION FOR SERVICE
PREPARATION FOR SERVICE AND EDUCATION

Diagram showing the interrelation of various types of schools.

sized city has done. Realising the injustice of preparing so many varied types of children in precisely the same way, it introduced an *evening elementary school* for the further training of those who had dropped out and needed further education, *special classes for backward children,* a *vacation school* for the training of children in industry during the summer months, an *industrial school* to provide specific preparation for entrance to industry for those children in the elementary school for whom it was suitable, a *technical high school* that pupils who desired might specialise in science and in the household and industrial arts, and it also introduced *evening schools of commerce, home economics, and trades* that those already at work might have specific training.

The diagram on p. 78 illustrates the way in which Newton has tried to solve its problem, showing the interrelation of the various types of schools. A larger city could hope to have a much larger assortment of schools; a smaller town could not afford to support so many schools, its efforts being limited to such differentiation between courses as it would be possible to make.

The problem which faced Newton is confronting almost every other community in the United States. Some of the more common attempts to meet this need are the following:

(1) *Differentiated Courses and the Elective System.*—This is the least satisfactory as well as the least expensive means of meeting the problem, yet it is about the only attempt at solution that is open to the great majority of American communities whose funds are low and whose pupils few. Just as was shown in connection with the high-school work, the schools are trying to introduce new courses and allow the pupils to make a choice of the work which will suit their needs. The elementary schools are commonly introducing cooking, sewing, manual arts, and agriculture, of a more or less elementary sort. Many states are furnishing part of the salary of such specialist teachers and the present national administration has, as a portion of its legislative programme, the Smith-Hughes Bill which will assist all elementary and high-school work in agriculture, industrial arts, and home economics. As the children reach the fifth or sixth grade they are allowed to take their choice of this work, all remaining in common classes for the general work. In the small high schools an effort is being made to provide for the group which is not planning to go to college. Professor Snedden, late commissioner of education for Massachusetts, instituted the following differentiated course in the small high schools of that state:

First and Second Years

Non-college preparatory:	College preparatory:
(1) English literature (5)	(6) English language (5)
(2) English language (5)	(7) English literature (5)
(3) General science (5)	(8) Selected from 3–5 (5)
(4) Social science (5)	(9) Mathematics (5)
(5) Practical arts (5)	(10) Foreign language (5)

It has the advantage of better providing for those who are not going to college, while still admitting of full college preparation. The difficulty with this work is that there can be little specific vocational preparation in one period per day for such a short school term as is found in most of our states. Still schools are adding to their equipment, land is being purchased for agricultural purposes, and in many sections teachers of agriculture and home economics are reaching out into their communities for the general uplift of all.

(2) *Junior High School.*—The junior high school, " an organisation of grades 7 and 8 or 7 to 9 to provide by various means for individual differences, especially by an earlier introduction of prevocational work and of subjects usually taught in the high school," represents a rearrangement of our school organisation which is calculated to do away with much of the inequality of the uniform programme of studies. The existing plan of an eight-year elementary school and a four-year high school is receiving much criticism. This accidental distribution of time, coming from our history, has several disadvantages. It creates a break in the two types of schools just at the time the compulsory education law ceases to hold them in school. There is heavy elimination of pupils in the seventh, eighth, and ninth grades. For those going into industry the seventh and eighth grades should point toward specific vocational preparation. For those going to college there is no good reason why languages and algebra and geometry should not be started earlier. The peculiar advantage of the junior high school, making easier the transition from the elementary to high school, decreasing elimination, and providing for all sorts of reforms otherwise impossible, is to break up the fixed programme of studies to provide for individual differences. The differentiation of work comes two years earlier than at present, to the mutual advantage of all students. Such a reorganisation of our education is illustrated in the following diagram:

Diagram representing the Reorganisation of United States Schools on Six-and-Six Plan

Age.	Grade.							
17–18	12	Agriculture.	Home-making.	General course.	College preparatory.	Bus. and com. course.		Science and technical.
16–17	11							
15–16	10							
14–15	9	Agriculture.	Home-making.	General course.	College preparatory.	Bus. and com. course.	Prep. for industry.	
13–14	8							
12–13	7							
11–12	6				Elementary school.			
10–11	5							
9–10	4							
8–9	3							
7–8	2							
6–7	1							

The fundamentals in the lower years are given in less time. Earlier opportunity is offered for specialisation. No one class of pupils is sacrificed for others. Professor Briggs of Teachers' College, Columbia University, estimates that there were nearly two hundred cities in the United States in 1914 which had reorganised their work on plans similar to this. The programme for the seventh, eighth, and ninth grades in the Los Angeles schools, following this plan, is as follows:

GENERAL COURSE

Seventh Year		Eighth Year		Ninth Year	
		Required Subjects			
English	5	English	5	English	5
Arithmetic	5	History and civics	5	Physical training	2
Geography	5	Physical training	2	Music or oral English	2
History	5	Oral English	2		
Physical training	1	Music	2		
Drawing	2	Manual training:			
Penmanship	2	Girls: Cooking	2		
Manual training:		Sewing	2		
Girls: Cooking	2	Boys: Woodwork	4		
Sewing	2				
Boys: Woodwork	4				
		Elective Subjects			
Select one of the following:		Select two of the following:		Select three of the following:	
French	5	French	5	French, German, Spanish, Latin	5
German	5	German	5	Bookkeeping	5
Spanish	5	Spanish	5	Stenography	5
Latin	5	Latin	5	Algebra	5
Bookkeeping	5	Bookkeeping	5	Commercial arithmetic	5
Stenography	5	Stenography	5	Ancient history	5
		Algebra	5	General science	5
		Drawing: freehand or mechanical	5	Select one of the following:	
				Manual training:	
				Girls: Cooking or Sewing	5
				Boys: Woodwork	5
				Drawing: freehand or mechanical	5

COMMERCIAL COURSE

Required Subjects

Seventh Year		Eighth Year		Ninth Year	
English	5	English	5	English	5
Arithmetic	5	History and civics	5	Commercial arithmetic	5
Bookkeeping	5	Bookkeeping	5	Bookkeeping	5
Stenography	5	Stenography	5	Stenography	5
Penmanship	2	Penmanship	2	Physical training	2
Geography and history	5	Physiology and hygiene	2		
Physical training	1	Physical training	2		

Elective Subjects

Pupils *may* select one:		Select one:		Select two:	
French, German, Spanish	5	French	5	French	5
Music and manual training	6	German	5	German	5
		Spanish	5	Spanish	5
		Algebra	5	General science	5
		Either oral English and manual training or music and manual training	6	Algebra	5
				Penmanship	5
				Music and manual training or oral English and manual training	6

VOCATIONAL COURSE

Required Subjects

Seventh Year		Eighth Year		Ninth Year	
English	5	English	5	English	5
Arithmetic	5	Manual training:		Manual training:	
Geography and history	5	Girls: Cooking	5	Girls: Cooking or sewing	10
Physical training	1	Sewing	5	Boys: Woodwork	10
Music	2	Boys: Woodwork	10	Drawing:	
Drawing	2	Drawing:		Girls: Freehand	5
Penmanship	2	Girls: Freehand	5	Boys: Mechanical	5
Manual training:		Boys: Mechanical	5	General science	5
Girls: Cooking	2	Physical training	2	Physical training	2
Sewing	2	U.S. history	5		
Boys: Woodwork	4				

Elective Subjects

Select one:		Select one:		Select one:	
French	5	French	5	Ancient history	5
German	5	German	5	German	5
Spanish	5	Spanish	5	French	5
Latin	5	Bookkeeping	5	Spanish	5
Bookkeeping	5	Algebra	5	Bookkeeping	5
Stenography	5			Algebra	5

(3) *Evening Schools.*—Evening schools were first started by private philanthropic foundations, such as Cooper Union in New York, to give instruction out of school hours for those who were

so unfortunate as to be unable to continue their work in school. Cities took it up as a function of the public school, often giving the same type of work as was given during the day. In recent years the tendency has been to make this work specifically vocational and to give a highly practical type of training. There were approximately 425,000 students enrolled in city evening schools in the United States in 1913.

(4) *Continuation Work.*—Those in authority in American education have never been able to secure sufficient backing by public opinion to influence legislators to compel employers to release their young employees for further training during a few hours each week, and it is doubtful if the United States will have as satisfactory a plan for continuation work as Southern Germany for many years to come. But voluntary continuation work has met with marked success in certain cities. The Fitchburg, Massachusetts, plan is one which is being copied widely throughout the United States. There the pupil, after graduating from the elementary school, is offered a four-year course making specific preparation for almost any trade which he may wish to take up. The first year is spent wholly in school. During the remaining three years the student spends one week at work at his trade, the next in school, the two types of work alternating. Fourteen manufacturing establishments have co-operated with the school authorities in making this work possible. Training is offered at present in machinists' trade, pattern-making, saw-making, drafting, iron moulding, tinsmithing, piping, printing, textile work, and office work. The work for the four years is as follows:

	Periods per week.
FIRST YEAR (all work in school):	
English and current events	5
Arithmetic, tables and simple shop problems	5
Algebra	5
Freehand and mechanical drawing and bench work	8
SECOND YEAR (school and shop work alternately):	
English	5
Shop mathematics, algebra and geometry	5
Physics	4
Civics	2
Mechanism of machines	5
Freehand and mechanical drawing	6
THIRD YEAR (school and shop work alternately):	
English	5
Shop mathematics	5
Chemistry	4
Physics	4
Mechanism of machines	5

	Periods per week.
THIRD YEAR (school and shop work alternately)—*continued*:	
First aid to injured	1
Freehand and mechanical drawing	6
FOURTH YEAR (school and shop work alternately):	
English	5
Commercial geography and business methods	2
Shop mathematics	4
Mechanism of machines	4
Physics, electricity and heat	4
Chemistry	6
Freehand and mechanical drawing	5

At the close of the first year a trial period of two months is spent by the pupil at work in his chosen field. In this way the pupil can better determine whether or not he wishes to enter that occupation permanently. At the expiration of this period an agreement is signed by the parents of the pupil and his employers, by which the apprentice agrees to continue the course for three years to its completion and the employer in turn agrees to teach the pupil the rudiments of the trade or occupation. During the second, third, and fourth year the pupil spends half of his time at work in the occupation, for which he receives 10, 11, and 12½ cents an hour. This amounts to $165.00 the first year, $181.50 the second, and $206.25 the third. An aggregate of $15,000 is being earned by the three classes in Fitchburg, alternating between school and work.

On Saturday mornings the boys who have been in school during the week visit the industries to familiarise themselves with the work that will be left by the retiring class.

Close touch is kept between the school and the industry. Reports of work done and the application of the boys are kept on both sides, and every effort is made to correlate the two lines of activity to their mutual benefit.

Similar efforts are being made in Hammond, Indiana; Lansing, Michigan; Beverley, Massachusetts; York, Pennsylvania; Richmond, Virginia; Cincinnati, Ohio, and in many other cities.

(5) *Special Schools.*—In the larger cities, and in sections where there is one occupation which so predominates that many of the pupils are likely to enter it, we find that the tendency is more and more toward separate schools with specific vocational courses. Thus in rural districts we find the *agricultural high school*, which trains boys for the farm and girls for the home. In certain large cities we find a *vocational high school*, a *commercial high school*, a *trade school*, or other schools of a similar sort, in addition to the

schools offering the general course. Typical programmes of study for such schools follow:

Industrial Course, Stuyvesant High School, New York City

FIRST YEAR

Subject.	Periods per week.
English	5
Algebra	5
Freehand drawing	2
Mechanical drawing	4
Joinery and cabinet-making	10
Music	1
Physical training, including physiology, hygiene	2

SECOND YEAR

Subject.	Periods per week.
English	3
Plane geometry	4
Chemistry	5
Freehand drawing	2
Mechanical drawing	4
Wood-turning, pattern-making, and foundry	10
Physical training	2

THIRD YEAR

Subject.	Periods per week.
English	3
Plane geometry and trigonometry	3
Physics	5
Modern history	3
Mechanical and architectural drawing	4
Forging and machine-shop practice	10
Physical training	2

FOURTH YEAR

Subject.	Periods per week.
English	3
Shop mathematics	3
American history and civics	4
Advanced chemistry or economics or commercial law or applied mechanics[1]	—
Steam and electricity	4
Mechanical or architectural drawing	4
Special shop or laboratory practice in one of the following electives: 1. Building construction (carpentry, sanitation including heating and ventilating, electrical wiring and installation). 2. Advanced forging and tool-making. 3. Advanced pattern-making and foundry practice. 4. Advanced machine-shop practice. 5. Industrial chemistry, lectures and laboratory practice.	10
Physical training	2

The above course of study has been planned especially for boys who wish to go directly from high school to positions in machine shops or other works, in building construction, in electric light and power plants, in chemical departments of manufacturing or packing establishments, in commercial industries requiring technical knowledge and skill, or in the various departments of the city government.

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[1] Time varies with subject elected.

Commercial Course, High School of Commerce, New York City

FIRST YEAR

Subject.	Periods per week.
Required:	
English	4
German, French, or Spanish	4
Algebra	4
Biology, with special reference to the materials of commerce	4
Local industries and government of New York City	2
Business writing	2
Business arithmetic, forms, and methods	2
Drawing (second half-year)	1
Physical training and physiology	2
Music	1

SECOND YEAR

Required:	
English	3
German, French, or Spanish	4
Plane geometry	3
Chemistry, with special reference to materials of commerce	4
History, with special reference to economic history and geography, down to A.D. 1750	4
Stenography	3
Drawing and art study	2
Physical training	2

Electives: German, French, or Spanish (4); bookkeeping and business forms (3); business arithmetic (1); commercial geography (1).

THIRD YEAR

Required:	
English	3
German, French, or Spanish	4
Geometry and algebra [1]	3
Physics, with special reference to materials of commerce	5
History [2]	3
Physical training	2
Drawing and art study	1

Electives: German, French, or Spanish (4); bookkeeping and business arithmetic (3); stenography and typewriting (3); drawing and art study (2); commercial geography (1).

FOURTH YEAR

Required:	
English	3
German, French, or Spanish	4
Economics and economic geography	4
History of the United States with special reference to industrial and constitutional aspects	4
Physical training	2

[1] In the second year students may elect additional stenography and typewriting or bookkeeping in the place of the second course in mathematics, or may give double time to mathematics by omitting either stenography or bookkeeping.

[2] First half-year English and colonial history 1620–1750. Second half-year modern history, England and the Continent 1750 to present time.

Electives: Foreign language (4); advanced chemistry (4); economic biology (4); trigonometry and solid geometry (4); elementary and commercial law (4); advanced bookkeeping, business correspondence, and office practice (4); stenography and typewriting (4); drawing and art study (4); modern industrialism (1).

FIFTH YEAR

Subject.	Periods per week.
Required:	
English	3
Inductive and deductive logic	3
Physical training	2

Electives: A foreign language (4); advanced mathematics (4); advanced physics (4); industrial chemistry (4); economic geography (4); nineteenth-century history, Europe and Orient, diplomatic history, United States and modern Europe (4); banking and finance, transportation and communication (4); administrative law and international law (4); accounting and auditing (4); business organisation and management (4); drawing (4); advanced economics (3).

Home Economics Course, Cleveland Technical High School

FIRST YEAR

Subject.	Hours per week.
English	5
Arithmetic and algebra	5
Botany and physiology	5
Cooking	4
Machine sewing	4
Applied art	6
Physical training	2

SECOND YEAR

Subject.	Hours per week.
English	5
Constructive geometry	5
Applied chemistry	5
Cooking	4
Dressmaking	4
Applied art	6
Physical training	2

THIRD YEAR

Subject.	Hours per week.
English	5
History of art and industries of Europe	5
Physics or German	5
Laundry (½ year), hygiene and invalid cookery (½ year)	4
Millinery	4
Applied art	6
Physical training	2

FOURTH YEAR

Subject.	Hours per week.
History of art and industry of America, civics	5
Advanced science or German	5
Domestic science	4
Dressmaking	4
Applied art	6
Physical training	2
Elective	5

In any year, a girl, if she so desires, may elect 4 hours of work in art in the place of either the cooking or sewing.

Agricultural Course, recommended in Minnesota

FIRST YEAR

Subject.	Hours per week.
English	5
Algebra	5
Manual training	10
Agriculture (Botany, botany of farm crops, field husbandry, farm crops.)	8

SECOND YEAR

Subject.	Hours per week.
English	5
Plane geometry	5
Manual training	10
Agriculture (Farm stock, dairying, poultry, apiculture, laboratory work.)	8

THIRD YEAR

Subject.	Hours per week.
English	5
Physics	8
Farm mechanics and forge work	7
Agriculture (Horticulture, fruit-growing, vegetable gardening, insects and diseases, landscape gardening, forestry, soils, manures, fertilisers, laboratory and field work.)	8

FOURTH YEAR

Subject.	Hours per week.
English	5
Chemistry	8
Civics	5
Farm sanitation	7
Agriculture (Farm mechanics, farm machinery, construction of buildings, cement, roads, surveying, farm management, agricultural economics, laboratory and field work.)	8

Williamson Free School of Mechanical Trades.—The Williamson Free School of Mechanical Trades is not chosen to illustrate trade schools in the United States because it is typical. It is not a public school supported at public expense; it is not situated in a large city; it is far more efficient than most trade schools. It is cited, however, because it does the work it sets out to do with efficiency and because it will have undoubted effect upon work of a similar nature in other cities in the United States. The school, which is situated some score of miles from Philadelphia, accepts boys above thirteen years of age and keeps them without charge for tuition, board, or lodging for three years. The courses, preparing for work as operating engineers, machinists, and bricklayers, are given here to illustrate the type of work. With the exception of the shop work the first two and one half years' work is the same in all three courses.

First Year

April 1st to August 1st	Hours per week.	*September 1st to April 1st*	Hours per week.
Arithmetic	3	Arithmetic	3
Geography—general review	2	Algebra	2
U.S. history ,, ,,	2	Physics	2
Physiology ,, ,,	2	Civil government — general review	2
Grammar	2	Grammar	2
American literature	2	American literature	2
Vocal music	1	Vocal music	1
Mechanical drawing	6	Mechanical drawing	6
In shop	20	In shop	20

Second Year

April 1st to August 1st		*September 1st to April 1st*	
Arithmetic—mensuration	3	Algebra	3
Algebra	2	Geometry	2
Grammar	2	Grammar	2
Physics	2	Physics	2
Chemistry	2	Chemistry	2
English literature	2	English literature	2
Vocal music	1	Vocal music	1
Mechanical drawing	6	Mechanical drawing	6
In shop	20	In shop	20

Third Year

April 1st to August 1st

Geometry	3	Commercial course	2
Trigonometry	3	Mechanical drawing	8
Physics	3	In shop	23
Chemistry	2		

September 1st to April 1st

Operating engineers		Machinists		Bricklayers	
In shop	43	In shop	43	In shop	43
Evening recitations:		Evening recitations:		Evening recitations:	
Strength of materials	1½	Geometry	1½	Geometry	1½
Steam, gas, electricity	1½	Trigonometry	1½	Trigonometry	1½
		Strength of materials	1½	Materials	1½
		Steam, gas, electricity	1½		

(6) *Vocational Guidance.*—Even if every city in the United States were to adopt one of the above plans for the differentiation of work, real equality of opportunity for each child would not be afforded unless there were some systematic effort made to help the child rationally to choose the line of work he wishes to enter.

Social status does not determine the line of work. All too often the accidents of chance determine the choice. Our system of vocational education cannot succeed unless the children enter the line of preparation suited to their capabilities.

Various plans have been devised and are being tried out in various cities to accomplish this end. The *Boston Plan* provides for a Vocational Information Department of the City School System, whose business it is to gather information about various lines of work which pupils may enter, to assemble such information so that it is available for parents, teachers, and pupils, to assist pupils in securing positions, to follow them up and keep in touch with them while at work, and if readjustments are needed to help the child to make such a change. In the schools there are "vocational counsellors" whose duty it is, in co-operation with the teachers, to study the individual pupils, to help them and their parents in wise choice of occupation, and to advise necessary preparation for such occupations. This plan has worked with some success and is being copied in many American cities. Another plan for vocational guidance is that which provides such information *through the medium of some course of study now found in the schools.* In Grand Rapids, Michigan, the work is done by the teachers of English in their regular classes. The first year of the high-school English is designed to show pupils those elements in life which make for success. The second year considers the work of the world. The third considers the preparation needed for such work, while the fourth takes up the ethical principles underlying it. Other school systems apply the work in history in this way, particularly courses in modern social and industrial problems. Another plan is that which tries to accomplish its results through a special course of study devoted to vocational guidance alone. In the Township High School in De Kalb, Ill., for example, a class of forty or fifty pupils meets once a week or more to discuss possible vocations which the pupils may enter, together with their advantages and disadvantages and the training needed for each.

Experts in vocational education doubt the success of these plans, particularly for younger children, many of whom by force of circumstances are forced to leave school and enter industry at early ages. For these children in particular, it is argued, no set course of instruction or kindly advice will avail. What they need is some active participation in varied types of industry itself, to secure a realisation of what is best suited to them. To provide this need the *prevocational school* has many advocates. This school, designed to accept graduates of the fifth or sixth grades and train them for two years or more, has for its purpose, in addition to doing the fundamental work needed in every occupation, the giving of as many varied types of experience to the pupils as are found in all types of vocations. They proceed on the theory that if the pupils have experience in the fundamental processes used in connection with the fundamental materials, such as food, wood, metal, textiles, clay, etc., they will be much better prepared to choose a vocation than if there is mere talk concerning such work. Schools of this sort are being instituted in many cities.[1]

Many agencies are at work in advancing this programme of vocational education. The National Society for the Promotion of Vocational Education, privately founded and supported, has done much to institute this work and spread the doctrine. Many of the states, such as New Jersey and Indiana, have adopted state laws and have appointed officers to direct such work, while the national government has on its programme of legislation an act to subsidise all such work in our public schools. It is only fair to state, however, that the country as a whole has hardly made a start toward an adequate solution of the problem.

Tendencies toward the Equalisation of Extra Expense in sending Children to School

Schools are free alike to rich and poor throughout the United States. But there are extra expenses in connection with school which make the burden heavier on the poor people than on the rich. Experience has shown that some children are prevented from attendance on school by the expense of the text books which are required. Children whose fathers are dead are often compelled to support the widowed mother. In many of the larger cities children from the slums come to school without having breakfast, with no provision for lunch. Lack of funds by which to pay a doctor or dentist curtails a child's school life. In many schools throughout the country efforts have been made to equalise this burden.

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[1] A good illustration of this work is found in the public schools of Menominee (Wisconsin) where through a co-operative arrangement with Stout Institute as many as sixteen different lines of work are offered, each of which is taught for two hours daily, five days per week, for nine weeks. The courses offered are:

Seventh Grade: Architectural drafting, bricklaying, carpentry, plumbing.
Eighth Grade: Mechanical drafting, cabinet-making, forge shop, printing.
First Year High School: Freehand drawing, joinery, wood-turning, printing.
Second Year High School: Mechanical drafting, pattern-making, foundry, machine shop.

During the third and fourth high-school years, opportunity for specialisation is given, the choice of work depending presumably on the basis of the experiences of the four years preceding.

(1) *Free Text-Books.*—In no other country in the world does the text-book play so important a part in teaching as it does in the United States. Text-books are required in nearly every subject and in many there are various types of supplementary texts used. While the cost of such books represents only a small part of the total cost of schooling, that burden placed upon a parent in poor circumstances represents no small item. Various cities early saw the injustice of this and provided for free texts (Philadelphia 1818, Jersey City 1830, Newark 1838, etc.). Massachusetts made free text-books obligatory in 1884, Maine in 1889, New Hampshire in 1890, Delaware and Nebraska in 1891, Pennsylvania in 1893, New Jersey and Vermont in 1894, Wyoming in 1899, and Maryland in 1904. Arizona, Delaware, Nevada, Nebraska, New Jersey, Vermont, and Wyoming, in addition to those mentioned, provide text-books for all elementary-school pupils at public expense. In most of the other states, school boards or administrative units may vote that text-books be free to all, and often some state aid is given if such provision is made. Unfortunately in some of the poorest districts, where such aid is most needed, the burden of the purchase of books still falls upon the parent.

(2) *School Lunches.*—Occasional schools in the slum districts of large cities have begun to furnish lunch to poor children who otherwise would have to do without. In many rural schools, particularly one-room negro schools, part of the work of the domestic science classes has been the preparation of simple lunches for the children. In Chicago lunch has been provided in some of the elementary schools for children whose mothers are at work during the day. " For one cent the child is provided with (1) a sandwich of bread and jam or bread and syrup or (2) a bowl of bean or pea soup with bread." The Douglas School, largely for negroes, in the poorer districts of Cincinnati furnishes a bowl of soup and toast at one cent. The extra expense in these cases is borne by the Board of Education. Greater development has been made in connection with the high schools, where such aid is of course less needed.

(3) *Mothers' Pensions.*—Some twenty-seven of the forty-eight states have laws making some sort of provision for widows with children dependent upon them. Children whose fathers have been taken from them are not so apt to have good educational opportunities as others. In a few states such pensions to widows are paid in proportion to the number of children dependent upon them who are regular attendants upon school.

(4) *Medical Inspection.*—Many children are kept from school or hindered in their work therein by defects which might be remedied by medical or dental attention were their parents only in a financial position so to provide. In New York City in 1908 the following conditions were found:

TABLE XXXI[1]

Health Conditions of Pupils in New York City, 1908

	Number.	Per cent.
Number of children examined	252,254	100
Found to have no defects	65,616	26
Found to be defective	186,638	74
Found to be suffering from:		
Malnutrition	8,054	3.2
Chorea	821	0.3
Tubercular lymph nodes	997	0.4
Cardiac diseases	1,964	0.8
Pulmonary diseases	673	0.3
Skin diseases	4,115	1.6
Orthopedic defects	1,728	0.7
Defect of vision	26,224	10.4
Defect of hearing	2,287	0.9
Defect of nasal breathing	36,099	14.3
Defect of palate	897	0.4
Defect of teeth	135,166	53.6
Hypertrophied tonsils	44,889	17.8
Defective mentally	691	0.3

In 1910-11 the Russell Sage Foundation instituted an investigation to determine the status of medical inspection in American cities. One thousand and thirty-eight cities were investigated, nearly ninety per cent. of the municipalities having regularly organised systems of schools under the direction of a superintendent. Four hundred and forty-three of these cities had regularly organised systems of health inspection. The following table gives a brief summary of the conditions found:

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[1] Monroe, *Cyclopedia of Education*, vol. iv. pp. 186–8.

TABLE XXXII [1]

Systems of Medical Inspection in Certain Cities in the United States in 1911

		Per cent.
Cities from which returns were secured	1,038	100
Having systems of medical inspection	443	43
Having systems for the detection of contagious diseases	405	39
Having vision and hearing tests by teachers	552	54
Having vision and hearing tests by physicians	258	25
Having complete physical examinations	214	21
Having dental inspection by dentists	69	7
Systems administered by boards of education	337	
Systems administered by boards of health	106	
Number of school physicians employed	1,415	
Number of school nurses employed	415	

Not only is there activity in this direction in the cities, but the states as a whole are beginning to legislate in this regard. Table XXXIII. (p. 95) gives the conditions in regard to medical inspection required by law of all schools in the various states.

Tendencies toward the Correction of Inequalities in the Distribution of Schools

It is clear from the previous discussion that children in the rural districts do not have as good opportunities as those in the city. Most of the country is sparsely settled. While the city child has large schools at his disposal, and adequate differentiation of courses and schools to meet his needs, the country child in general has to rest content with a small one-room school for eight years, with no high-school advantages. If he wishes to secure higher education he must pay his transportation charges to some centre and pay for his living expenses while in attendance upon such school. This of course does not provide equal opportunity for all American children.

There are a few tendencies operating in sections of the United States designed to correct this. Among these are consolidation of schools and transportation of pupils, erection of large schools at central places with dormitory facilities and the refunding of railroad fares.

Of these perhaps the most important is the consolidation of schools. The progress in this and the effect are shown in the discussion of elementary education (see above).

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[1] Monroe, *ibid.* vol. iv. pp. 186–8.

Relatively little has been done in this regard that at all approaches the solution of the problem. As long as our population is as sparse as it is and as long as the custom prevails of living on isolated farms throughout the country rather than in villages as in Europe, country children will not have equal opportunities with those of the city.

TABLE XXXIII[1]

Principal Features of State Laws and Regulations providing for Medical Inspection, 1916

Titles to columns: (1) State; (2) Permissive or mandatory; (3) Administered by school or health authorities; (4) Inspection by doctors for contagious diseases; (5) Physical examinations by doctors; (6) Inspection of teachers, janitors, and buildings by doctors; (7) Sight and hearing tests by teachers; (8) Normal pupils trained in tests of sight and hearing; (9) Provisions for employment of nurses; (10) Penalty for violation of law.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
California	P	S			*				
Colorado	M	S				*			
Connecticut	M	S	*	*	*	*		*	
Indiana	P	S	*	*	*	*			*
Louisiana	M	S				*			
Maine	P	S	*	*		*			
Maryland	P	S	*	*	*	*	*	*	
Massachusetts	M	S&H	*	*	*	*	*	*	
Missouri	M	S	*						
New Hampshire	M	S	*	*	*	*	*		
New Jersey	M	S	*	*					
New York	M	S	*	*	*	*	*	*	*
North Carolina	P	H	*		*	*			
North Dakota	P	S	*	*	*				
Ohio	P	S	*		*				
Pennsylvania	M	S	*	*	*			*	
Rhode Island	P	S	*	*	*	*			*
Tennessee	P	S			*				
Utah	M	S		*		*			
Vermont	P	S		*		*			
Virginia	P	S				*			
Washington	P	S	*		*				
West Virginia	M	S	*	*	*			*	

Tendencies toward the Correction of Inequalities due to special Needs of certain Children

Education of Cripples.—The modifying of schooling to suit the needs of crippled children was first begun in the United States in

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[1] Gathered from U.S. Bureau of Education, 1916, *Bul.* 47.

New York City by private agencies. In 1906 the city joined forces with two private agencies and supplied equipment and teachers, while the private agencies furnished transportation and the buildings. Since then classes for cripples have been added to the regular public school buildings wherever possible. In 1912 there were twenty-three such classes. Classrooms are generally on the first floor, and in the newer buildings on a court where the children can play in the open air between classes. Special equipment is used and hot lunches are served to the children. Similar provisions are made in Boston and Chicago.

Education of the Blind.—In certain cities, such as Chicago, New York, Cleveland, Cincinnati, and Milwaukee, the blind children are sent to certain public schools which are specially equipped for the purpose. In the earlier grades the children take part with the normal children in singing and oral reproduction of stories and spend the rest of the time in a special room having special apparatus (Braille books, typewriters, embossed maps, etc.), under the direction of a specially trained teacher. As the children progress, they spend less of their time in the special room and more with the regular classes. Occupations which are open to the blind are rather narrow. They comprise music in its various forms, weaving of rugs, carpets, baskets, repair work, etc. Many of the states have special schools for blind children at central points.

Education of the Deaf.—The greater number of special schools for the deaf are located in the middle west. The pupils are taught by the oral method and are treated as nearly as possible like normal children. The same course of study is usually followed, except in the language work. Recently a good deal is being done with regard to teaching language and speech to deaf children at the same time that normal children are acquiring these arts. Deaf children often carry high-school work successfully along with normal classes.

Education of those with Defective Speech.—In 1910 the superintendent of schools in Chicago found that there were 1744 children in the public schools with some sort of defects in speech. Ten special teachers were employed to help in these cases. The children were not removed from class, but were given special help by one of these teachers who went from school to school. Boston segregates these children in special classes. Minneapolis, Seattle, and New York are among the other cities which give special attention to this problem.

Education of the Feeble-minded.—A small percentage of the school enrolment in the United States is composed of children of low mentality. Estimates of this condition vary, but it is probably true that from two to four per cent. are of such low mentality that they cannot pursue the normal school work with profit. Some three-fourths of these are capable of treatment in the public schools, the others needing confinement in special institutions. In 1911 there were twenty-seven state institutions for the feeble-minded in twenty-one states and eighteen private institutions. The first special class in the United States was opened in Providence in 1896, Boston and Philadelphia following in 1899. In 1911 New York had 2500 enrolled in such classes, Chicago 469, St. Louis 245, and Boston 154.

Education of Truants and Incorrigibles.—Many of the cities of the United States have special classes and schools for morally exceptional children. In 1911 the United States Commissioner of Education addressed a questionnaire to all city superintendents of the country in regard to this. Seventeen per cent. replied, the answers being tabulated below:

Division.	Cities having classes for incorrigibles.	Cities having parental schools.	Total.
North Atlantic . .	59	10	69
South Atlantic . .	7	1	8
South Central . .	10	1	11
North Central . .	39	5	44
Western . . .	13	7	20

There are several types of work provided for this special class. There is the *ungraded class*, usually within the regular school building, to which backward children are committed. There is the *day disciplinary school* to which are sent those children who cannot be handled in the special classes. They are usually kept for long hours, and during the vacation periods as well. There are the *parental schools* where incorrigibles are sent, who would otherwise be sentenced to the reform school. Here they are kept on the theory that the home environment has been a large contributor to their delinquency. They are usually kept for a long time, often two years. Sometimes they are kept indefinitely. The following is the daily programme at the New York Parental School:

6.00. Rise, wash, help get breakfast.
7.00. Breakfast.
7.30. Wash dishes.
8.00. Military drill.
8.30. to 11.30. Class work and farm and shop.
12.00. Dinner.
12.30. Wash dishes and prepare for class or shop.
1.00 to 4.00. Class work, farm, and shop.
4.00. Play.
5.30. Supper.
6.00. Wash dishes, clean uniforms, etc.
6.30. Read or study. Night school for the more backward.
7.30. Bath.
8.00. Bed.

Several cities have developed a probation system and children's court which, by wise guidance, has developed into a powerful agency for the cure and prevention of juvenile delinquency. The experience of Denver and Seattle is worth the study of any one interested in this problem.

Education of the Negro.—The negroes, forming eleven per cent. of the population of the United States, were freed from slavery in 1863, at which time probably not more than five per cent. of the race could read or write. In 1910 more than two-thirds of the race were literate. Despite the fact that this is the largest ignorant group of people in the United States, they receive but two per cent. of the total amount expended for education, the yearly expenditure per capita of the total school population for common schools being only $1.71.

In the northern states, where there is comparatively little race prejudice, the negroes and whites are educated side by side. In border cities like Cincinnati it is permissible for negroes to attend any school in the city. In that city, however, it has become customary for them to send their children to the Douglas School, where there are splendid facilities, and where the principal and teachers are of the negro race. In the south conditions are not so favourable. The rural schools are poor in equipment, with poorly paid teachers and all too short terms. Schools are so far apart that it is difficult for children to attend with regularity. Many of them are overcrowded in fair weather and deserted in bad. As a result the children are retarded, rarely reaching the fifth grade, when the compulsory education law ceases to hold them in school. There are high schools for negroes in the southern cities, but they are rarely found in the rural districts. The tendency of the past few years has been in the direction of the county training school, a school located centrally in a county, covering the work of grades five to eight, or possibly higher, with strong emphasis on agricultural, industrial, and home economics work. Many of the states have fostered the introduction of travelling industrial supervisors and demonstrators who have charge of the work in the schools, and who, employed twelve months in the year, feel a responsibility toward the parents as well as the children. Better farming methods and better care of the home have resulted from this.

Tendencies toward the Correction of Inequalities due to an Ignorance of Educational Conditions

It is evident from the fragmentary and scattered data upon which this study is based, and its essential incompleteness, that there is much that is not known regarding education in the United States. This has been one of the leading reasons why education has been so backward in so many sections. In a system of administration where so much power is left to the small local unit there is bound to be wide variation. The advantage of this lies in the possibility that through many types of experimentation some outstandingly good plans will be developed, capable of wide application elsewhere. But this advantage will not be realised if there is no widespread knowledge of what is being done elsewhere and a comparative knowledge of the efficiency of home institutions. American people are proud of their own way of doing things and this pride often blinds them to the real facts. Several factors have contributed in late years to throw light on the problems of education, and in particular to show certain sections their relative efficiency as compared with others.

Scientific Study of Education.—The study of teaching and the administration and organisation of education has in the past few years become an important part of the work of our colleges and universities. Introduced primarily for the training of teachers, it has had the corollary of encouraging scientific research upon problems of education. It has in particular encouraged the application of historical, comparative, and statistical methods to education and has turned out experts capable of contributing to the study of this field. As a result an increasing number of studies each year are being added to our information regarding the efficiency and progress of our schools.

One prominent means of furnishing this information has been the *school survey*, a study of a particular system of schools in comparison with other schools. A city, county, or state, having alert and progressive officials, realising its own ignorance of educational conditions, locally and elsewhere, invites a group of specialists to make a study of these schools. These experts look over the field, determine a plan of work, gather the data, secure similar data from other schools, and upon this as a basis make suggestions. In this way a great deal of data which otherwise would never be secured has been gathered together and organised, and much knowledge of our real school conditions has become available to the public. Important surveys of cities have been those of New York City; Butte, Montana; Portland, Oregon; San Antonio, Texas; Springfield, Illinois; Salt Lake City, Utah; Denver, Colorado; Leavenworth, Kansas; and Richmond, Virginia. Vermont, Ohio, and Maryland have made important surveys of statewide conditions. A student of education in the United States or elsewhere would do well to secure these surveys as published.

One important feature of these surveys is their use of such *standard tests* as have been developed. Scientific investigators realised that there was no standard of achievement in any line of school work. No one knew with any degree of definiteness just what a fourth-grade child should be expected to do in arithmetic, nor did teachers have any standard of comparison by which they might judge the relative progress of the pupils in their classes when compared with the progress of pupils in the classes of other teachers. To meet this need investigators have studied the work of children in school, have tested them, and then have given similar tests to children of equal advancement in other schools. The Courtis tests in arithmetic, for example, have been given to thousands of children in many cities in many parts of the United States. With this as a basis, a teacher may know just how her children compare with thousands of others. Similar standard tests have been developed in handwriting, composition, drawing, spelling, reading, and other subjects. Efforts are being made at present to secure similar information with regard to some of the high-school subjects, particularly algebra.

Costs of education similarly have received their share of attention, and efforts are being made to apply to schools the principles of scientific management which have worked so successfully in the business world.

With the training of experts capable of applying scientific methods to the study of education has come their employment in other than incidental capacity in connection with the departments or schools of education of higher institutions of learning. Many cities have entrusted their financial affairs to a *business* *manager*. Others have an *educational expert* or a *bureau of efficiency* whose duty it is to collect data, to institute experiments, and to suggest ways and means of remedying errors and securing progress. Some counties and states have appointed similar experts in official positions.

The Work of Private Foundations.—Several great philanthropists have created funds for the promotion and improvement of education in the United States. The most important of these are: (1) *The Peabody Education Board,* established in 1869 by George Peabody with a grant of $3,000,000 (about $2,000,000 in reality) for the improvement of education in the south. This fund was long used for the promotion of all sorts of educational reforms, particularly in the training of teachers, through institutes, and particularly through the Peabody Normal College (1875) at Nashville. This fund has since been closed by a grant of the major portion of it to the new institution called the George Peabody College for Teachers for the higher training of teachers and to the various departments of education in the state universities of the south. (2) *The Russell Sage Foundation,* founded by Mrs. Russell Sage in 1907 by a grant of $10,000,000 for the "improvement of social and living conditions in the United States of America." Its activities have been varied, but in education it has been powerful in investigating educational conditions and in establishing methods of measuring educational results. It has helped to spread the doctrine of securing the facts about schools rather than trusting to the prejudices and pride of local communities. (3) *The Carnegie Foundation,* established by Andrew Carnegie in 1906, has devoted the major portion of its work toward the pensioning of professors in higher institutions of learning. It has, however, devoted a portion of its efforts to the scientific study of education; and in the Vermont Survey made a thorough study of the educational conditions in one state, to its great advantage and improvement. (4) *The General Education Board,* founded by John D. Rockefeller in 1902, has an endowment of over $40,000,000. Much of the proceeds of this great amount is used to increase endowment funds of colleges and universities, but the board has done such important work in other lines that more extended mention is necessary.

One of the greatest problems to which it has devoted attention has been the upbuilding of education in the south. Here in a section in which poor provision had been made for education it has effected improvements which, without its help, would have required years to effect. The south was slow in developing public schools. It had neither the organised labour nor the democracy of poor people which contributed to the upbuilding of these schools in the north and west in the second quarter of the nineteenth century. Just as it was making beginnings along this line the great Civil War drained the country of its wealth, its men, and its ambition. It also freed a great class of negroes unable to adjust themselves to new conditions. The south was, of course, backward educationally. It was to this problem that the *General Education Board* addressed itself.

Realising that public education depends upon public support, and that improvements in schools mean added expense and increased taxes, which in turn depend upon increased wealth, the *General Education Board* first tried to help the people of the south to improve their methods of producing and preserving farm products. Its farm demonstration work influenced the farmers directly, while its corn clubs for boys and its canning clubs for girls reached still more directly into the very hearts of the homes through the children and introduced scientific methods to take the place of tradition. This work became so important and its worth was so clearly realised that the national government has since assumed most of it. The initial capital to start the ball rolling was provided by the *Board*, and the result is that farm values have increased, paving the way for increased taxation in the support of schools.

The next step lay in the transfer of a portion of this added wealth to the schools. A dozen years ago public secondary schools in the south were little more than a name, rural schools were poorly equipped doing poor work, while the schools for negroes were ill-supported and ill-suited to the needs of the people. The fundamental need of the time was to evangelise the public-school idea, secure more money, better support, more adequate buildings, higher paid teachers, and longer school terms; and the majority of the people of the section did not even realise this. It was here that the *General Education Board* made its second attack. It provided salaries and travelling expenses for certain men to spread the new point of view, to preach new and better schools, to plead for better support, to act as clearing houses for the best in practice and experiment that is being carried on in this and other countries. These men, although paid by the *General Education Board*, were appointed by local authorities, and in every sense of the word were a real part of the situation in which they worked. The professors of secondary education put life into the high-school movement; the rural-school inspectors have bettered the rural schools; while the success of the supervisors of negro schools has been phenomenal. Better buildings, better and higher paid teachers, longer school terms, more adequate programmes of study, and more nearly equal opportunity have been the result. Through its tremendous resources the *General Education Board* has been able to accomplish in a decade what it would have taken scores of years normally to effect.

The *General Education Board* is turning its attention also to educational research, particularly in subsidising individuals to make investigations and in conducting surveys of schools, such as its excellent study of educational conditions in Maryland and its forthcoming report on the Gary schools.

X. CONCLUSION

The brief space allotted so vast a subject has necessitated the elimination of many important topics. No mention has been made of the kindergarten, private schools, colleges and universities, school buildings and architecture. There is not space to discuss adequately the methods of teaching, discipline, and government of the schools. One important feature of the school life of the American child is his out-of-class activity in societies, athletics, literary activities, etc. Space has necessitated the elimination of this.

Many of the data are fragmentary. Others are not very recent. So rapidly are conditions changing that in a very few years this account will be out of date. The lack of wide knowledge of educational conditions and the inaccessibility of many statistics are real handicaps in the building of an accurate account of education in the United States.

Certain conditions should stand out in this study. (1) There are many fine schools in the United States and many communities which are progressive educationally. (2) There are many very poor schools and many communities whose educational facilities are altogether inadequate and whose educational ambitions are dull. (3) There is little uniformity in educational conditions, except in the programme of studies, which is precisely the place where there should be little uniformity. (4) The United States as a nation has been changing so rapidly that no fixed educational system could keep pace with this change. It is perhaps fortunate, therefore, that there is such wide diversity coupled with authority placed in the hands of the local unit. There are multitudes of good examples in education that thoughtful communities may adapt. There are great numbers of bad examples which may equally well be avoided. Progress is bound to follow. (5) There is a steady drift toward the centralisation of power in larger governmental units, in the county, in the state, and perhaps some time in the future in the nation. Forward-looking communities will not be compelled to step backward; reactionary ones will be compelled to come forward. (6) Despite the seeming inefficiency, the outlook for the future is bright.

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CHAPTER II

EDUCATION IN GERMANY

I. INTRODUCTION

NOWHERE has Aristotle's dictum that education is a function of the state, conducted primarily for the ends of the state, received better and more complete exemplification in practice than in modern Germany. Nowhere has his statement that the state is prior to the individual been more grossly perverted. An intelligent interpretation of the German educational system is accordingly impossible without a grasp of the social and political factors that give it its character and shape its end. While in other countries the state is merely the highest of a number of competing social institutions for securing the greatest good of the individual and affording him a means for self-realisation, in Germany the state appears as a separate entity to the self-realisation of which all other institutions are subordinated. In different degrees this generalisation is true of all the component parts of the German Empire; it is essentially characteristic of the predominant partner, Prussia. The following account will, therefore, be confined in the main to that state.

The foundation of the modern conception of the state in Prussia was laid in the days of Frederick the Great; its definite formulation has been the work of her politicians and philosophers during the nineteenth century. It was Frederick the Great who was responsible for the declaration that "the head of the state to whom is entrusted the duty of securing public welfare, which is the whole aim of society, is authorised to direct and control the actions of individuals towards this end." Following up this theory he succeeded in building up a strong bureaucracy with whose assistance he fostered the development of agriculture and industry. With the help of the church he developed a system of elementary education. In other ways his subjects became accustomed to look to state action for the promotion of their welfare.

The system, it was true, was shattered to pieces by Napoleon in 1806, but a precedent had been established. Under the direction of men like Stein, Scharnhorst, Von Humboldt, and others, Prussia arose out of the ruins able to play a leading part in the attempts to found a German confederation. The concentration of power in the hands of the government continued and the revolution of 1848 found the reactionary elements strongly entrenched in support of its theory. The strength of their position may be gauged from the fact that of the following modest requests then presented to the government by elementary teachers hardly any have yet been granted. The teachers petitioned for the abolition of clerical supervision, the establishment of a separate ministry for educational affairs alone, the removal of normal schools to university towns, the training of teachers in higher educational institutions, and professional inspection. The response of the government was contained in the obscurantist regulations of 1854, which only served to hem the elementary-school teachers about with greater restrictions.

In 1862 Bismarck became chief minister and at once enunciated his doctrine that "the great questions are to be settled not by speeches and majority resolutions, but by blood and iron." Relying on this doctrine he was able to crush the liberal aspirations that remained, and by successful campaigns against Austria and France he still further strengthened the position of the government and assured for Prussia the leadership in the German Empire. His internal policy was now constantly directed to securing the pre-eminence of the state and the unwavering obedience of the individual. In 1876 it was declared by law to be criminal "to attack in print the family, property, and universal military service or other foundations of public order." This was followed in the next year by the prohibition of the spread of socialistic opinions by means of books, newspapers, and public meetings. When in 1882 the right of the king personally to direct the policy of the state was established every criticism of government action was as a result construed as *lèse-majesté*. This repression of liberal movements was offset by an extension of the protection of the state to the working classes. However admirable the system of social legislation may be, it was undoubtedly initiated to secure the allegiance and submissiveness of the classes benefited thereby to the larger policies of the state as well as to divert their attention from the social and political agitators of the day. It was during this period that a nation, predominantly agricultural and rural, was converted by a paternalistic government into a commercial, industrial, and urban population. A state has been developed in which the individual has been trained to look to an efficient administration, with all the defects of bureaucracy and officialdom, for everything that affects his personal comfort and welfare. Temperamentally docile, uncritical, and self-complacent, the German has shown himself willing to have his life regulated in every phase from the day of his birth up because he feels that the material benefits enjoyed by him are the gift of the state. This is well summarised in the following statement: "The state has its finger on the pulse of the worker from the cradle to the grave. His education, his health, and his working efficiency are matters of constant concern. He is carefully protected from accident by laws and regulations governing factories. He is trained in his hand and in his brain to be a good workman and is insured against accident, sickness, and old age. When idle through no fault of his own work is frequently found for him. When homeless a lodging is offered so that he will not easily pass into the vagrant class. When sick he is cared for in wonderful convalescent homes, tuberculosis hospitals, and farm colonies. When old age removes him from the mill or the factory a pension awaits him, a slight mark of appreciation from society, which has taken in labour all that his life had to give and left him nothing more than a bare subsistence wage." [1] The case of the worker affords a good, because obvious, illustration. Control of a similar character is exercised throughout all grades of society.

By this process the supremacy of the state was established in practical every-day life. But practice was by no means divorced from theory. The philosophers were prepared to justify the conception of the sphere of state rights held by the politician. Almost coincidently with the beginning of the aspirations of Frederick the Great the political theorists and philosophers began to exalt the supremacy of the state, to be followed soon by the exaltation of the German state in particular. But it was found possible in theory to justify the co-existence of the supremacy of the state with the supremacy of the individual, each exercised in definitely recognised fields. Just as one is compelled, according to the theory, to recognise a distinction between the realms of science in the world of sense and the realms of morals and conduct in the spiritual world, so there is nothing incompatible in the distinct fields assigned to the state and to the individual. The function of the one is to furnish technical efficiency and organisation, of the other to find scope therein for the development of self-conscious idealism. The state must accordingly be free without interference to organise and provide the mechanism which is to ensure a smooth course for the life of the individual; for this surrender the individual receives in return all the advantages and benefits accruing from technical efficiency and the privilege of developing the "true inner freedom of his soul"; in civil and political action the individual accepts the gospel of duty towards constituted authority, a self-imposed law consciously obeyed. On this principle the only true freedom is the freedom of the soul, which exists when action and will are in harmony. The state accordingly is an entity, the creation of self-conscious reason for the promotion of the ideal and spiritual ends of its members. Unlike the English or American conception of the state as an aggregation or organisation for the collective interests of men in association, the German state is a moral personality distinct from the individuals composing it. The state thus holds itself responsible for encouraging and fostering those conditions that make for efficiency; hence trade and industry, literature, science, and art, philosophy and religion, education, and the army—all these factors that are included in that elusive term *Kultur* come within the purview of state activity.[1]

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[1] Howe, F. C., *Socialised Germany*, p. 162. New York, 1915.

Theory and practice, therefore, combine to promote the idea of the supremacy of the state. Further support is given to the conception by the political theory which regards the be-all and end-all of the state as power. The belief that the state can only attain its greatest moral end with increase of power is a theory which makes might the supreme right and places state morality on a different footing from individual morality. Government accordingly is subject to no restrictions and the individual is merely a pawn to be disposed of as the needs of the state demand. Political questions thus become questions of power, as Bismarck said, not matters for discussion from the point of view of individual needs. The power of the state is autocratic and is exercised through a bureaucratic system of administration, which renders all activities, including the church, the universities, and the schools, subject to state control. Efficiency undoubtedly results and definite standards are established, but at the cost of individual initiative and participation. The state thinks for the individual, it relieves him from the responsibility of making decisions, and the bureaucracy decides with a knowledge of the state needs what is for his own good. Citizenship thus becomes a piece of mechanism, and every citizen in the state has a definitely assigned position (*Stand*). Underlying all political and social life are pressure and compulsion to uniformity, orthodoxy, and correctness. The supervision of the individual from the cradle to the grave has led to an abdication by the people of the right to political opinions of their own, and with it to a decline of political capacity, which is admitted by such an authority as Prince von Bülow.[1]

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[1] See Dewey, *German Philosophy and Politics*, *passim*. New York, 1915.

The doctrine of state supremacy is also strongly entrenched in the survival of a strong caste system which pervades every walk of life, especially in Prussia. Political, social, and industrial relations are dominated by it. In politics, as in society, an overwhelming influence is vested in the Junkers, of whom some fifteen thousand are scattered throughout the kingdom, each a petty prince on his own manor. And of these the king, as one of the wealthiest landowners, ranks as a member. Traditionally powerful, this class is rendered still more influential politically by an electoral system that was created to bolster up a conservative and reactionary minority. Under this system the tax paid to the state is divided into three parts, and those in each constituency whose payments are the heaviest and make up the total of the first third form the first class of voters, and so on for each of the three parts. The result of this system in a recent election (1910) was that the first class consisted of about two hundred and sixty thousand voters, the second class of nine hundred thousand voters, and the third class of more than six and a half million voters, each class carrying as much weight as any other. Even if independent thinking were permitted, such a system would inevitably return a majority devoted to the interests of class and wealth. The masses are accordingly practically disfranchised.

No sphere of public or private life is free from the more or less subtle influences employed to impress on the individual the fact that the state is supreme and that he is but a humble instrument for the promotion of its independently conceived objects. A free press is offset by government subsidised agencies. The church, of which the king is the supreme head, is an instrument of government acting through an ecclesiastical authority appointed by the king. And if the influence of the church were not sufficiently strong to place loyalty and obedience to the throne side by side with religious duty, it is encouraged by the revival and promulgation, loudest of all by the king himself, of the doctrine of the divine character of sovereignty. The present king as emperor briefly summarised the doctrine and its implications in the sentence, "Regarding myself as an instrument of the Lord, I go my way, whose goal is the welfare and peaceable development of our Fatherland, and in so doing I am indifferent to the views and opinions of the day."[1] Both doctrines, that of the supremacy of the state and that of the divine right of kings, are still further impressed on the minds of the king's subjects by the system of universal conscription, which serves as a finishing school in the lessons of duty, discipline, and subordination to authority. The climax in this system of rigorous government control is reached perhaps in the mobilisation of public opinion through the universities, those seats of academic freedom in everything not pertaining to matters of government. "The universities have long been in Germany a department of state; and in a subtle and imperceptible way they have been almost an organ of government. X Professors get their appointments from the state; and one sure way for a professor to recommend himself to public notice and to win promotion is (without neglecting his scholarly labours) to make himself a trumpet for the glorification of modern Germany and an exponent of its wider political aims. The political professor has an influence in Germany which is quite without parallel in any other country."[2] If any further proof of this statement were desired one need only turn to the manifestoes of German professors at the outbreak of the Great War.

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[1] Prince von Bülow, *Imperial Germany*, p. 103: " Despite the abundance of merits and great qualities with which the German nation is endowed, political talent has been denied it." P. 104: " Politically, as in no other sphere of life, there is an obvious disproportion between our knowledge and our power." See the whole section on home policy.

The educational implications should now be obvious. A nation's school system is but the reflex of her history, of the social forces, and of the political and economic situations that make up her existence. From the point of view of the state, education is not in the first instance regarded as a means of laying the foundations for future progress, but a method of conserving existing conditions and prevailing ideals. Admitting the premises, the first function of education in Germany in general and in Prussia in particular is to produce the loyal and contented citizen, ready to take his place as a cog in the political machine known as the state. To this end the state must inevitably control and closely supervise the educational institutions; its educational function must be to secure uniformity, to define the standards, prescribe the courses of study and even the methods of instruction, and regulate admission to the teaching profession. A system with such an object requires for its success an excellent routine and the highest degree of administrative efficiency. Personality and initiative may be suppressed; and progress that comes from private endeavour, from variety of experimentation, and from the enjoyment of freedom of growth may be checked, but the state does succeed in using the schools as effectual vehicles for transmitting such views, opinions, and ideals as it considers most conducive to the attainment of her own ultimate goal.

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[1] See Dawson, W. H., *What is Wrong with Germany?* pp. 53 ff. London, 1915.

[2] Muir, Ramsay, *Britain's Case Against Germany*, p. 50. Manchester, 1914.

II. THE STATE IN RELATION TO EDUCATION

The relation of the state to education in Prussia is still defined by the *Allgemeine Landrecht* of 1794. Under the first clause of this law of the constitution "schools and universities are state institutions charged with the instruction of youth in useful information and scientific knowledge." By the provisions of the third clause "all public schools and educational institutions are under the supervision of the state and are at all times subject to its examination and inspection." Since educational institutions "may be founded only with the knowledge and consent of the state" (clause 2), it follows that the control of the state over education is almost complete.

The authority charged with the control of education, excluding commercial, technical, and agricultural, is the Ministry of Public Worship and Education. A central authority was established as long ago as 1787, when by the direction of Frederick William II. the reorganisation of the school system and the supervision of education was placed in the hands of the newly created *Oberschulkollegium*. In 1810 the control of ecclesiastical and educational affairs was transferred to a bureau in the Ministry of the Interior. Seven years later an independent Ministry of Public Worship, Education, and Public Health (*Ministerium der Geistlichen, Unterrichts, und Medizinalangelegenheiten*) was established and had charge of the three fields of public service referred to in its title until 1911, when a separate department was instituted for public health. It will be noted that the intimate association of the church and education survives. The ministry as at present constituted is under the direction of a minister who is a member of the cabinet and is appointed by and is responsible to the crown. He is charged with the task of drawing up the budget, is answerable for the expenditures, and in questions of conflicting authority he acts as the final court of appeal. Since Prussia does not possess a code of educational legislation, the minister through his administrative orders, regulations, and drafting of courses of study holds a position of considerable responsibility and importance. His orders, regulations, rescripts, and decisions (*Erlass*, *Regulativ*, *Verfügung*, *Bestimmung*) have the force of law and are brought to the attention of all school authorities through their publication in the *Centralblatt für die gesamte Unterrichtsverwaltung*. In the hands of the minister is also vested the power of making certain appointments and of ratifying others, a function which for furthering the objects of the state is as important as direct supervision of the schools, the prescription of courses of study, the approval of text-books and examination papers. An under-secretary of state serves as the deputy of the minister. For educational purposes the work of the ministry is apportioned to two bureaus, of which one has charge of university, secondary, technical, and art education, the other of elementary, middle, and normal schools and institutions for the training of defectives and for physical training. Each bureau is presided over by assistant secretaries (*Vortragende Räte*) responsible to the minister. A third bureau in the ministry deals with matters concerning public worship.

The authority of the ministry is delegated to administrative bodies with power over areas varying in extent from the provinces to the local country districts. Prussia is divided into fourteen provinces, each under the direction of the chief president (*Oberpräsident*) who is responsible for the civil administration. For education purposes he is assisted by a provincial school board (*Provinzial-schulkollegium*) of about seven members, school inspectors, and administrative officials. Assisted by the board the chief president appoints the commission to conduct examinations for teachers in middle schools and for elementary-school principals. Subject to the ratification of the minister he appoints teachers to the normal schools, with the exception of the directors, and to the preparatory institutions maintained by the state. He has the deciding voice on all financial matters affecting teachers, and may retire teachers in elementary, middle, and secondary schools on pensions. Under his direction the board has charge of all branches of higher, *i.e.* secondary education. It controls the appointment, promotion, disciplining, suspension, or dismissal of teachers in higher schools, including normal and preparatory schools. It examines text-books, and with the consent of the minister may order the introduction, when necessary, of new books. All regulations for the internal management of schools under its charge must have the approval of the board. Finally, the board regulates and supervises the leaving examinations from the nine-year secondary schools (*Abiturientenexamen*) and from normal schools, as well as the final examination for the permanent appointment of elementary-school teachers. Twice a year the board transmits a report of its work to the ministry.

The unit of administration of the lower schools is the county (*Regierung*), of which there are thirty-seven in number, or from two to three in each province. A bureau of church and school affairs (*Abteilung für Kirchen und Schulen*) in each county exercises supervisory functions over elementary, middle, and private schools. The bureau appoints teachers to the elementary schools on royal domains and ratifies or rejects the appointments made by other patrons and school committees. It audits school accounts and in general supervises the operation of all school laws and ministerial orders. At the request of local bodies it may conduct inquiries into local conditions for the purpose of recommending the creation of new school districts. Each bureau consists of seven or eight members, presided over by the county president, and including administrative officials and school men. The professional members of the bureau (*Schulräte*) are expected to make a tour of the county annually and submit a report, which is included in the report of the bureau. The chief president of the province acts as the intermediary between the provincial board and the county bureaus, and by a ministerial decree calls a combined meeting of these bodies once in two years.

The provincial boards and the county bureaus are authorities delegated by the ministry to act on its behalf. They are organs of the central government exercising delegated functions. They are in no sense local representative bodies. The local divisions are the cities (*Städte*) and the rural districts (*Landkreise*). Educational control, subject to the regulations of and supervision by the central authority, is vested in the municipalities in the city school committee (*Stadtschuldeputation*), which is responsible to the city government and the district school inspector. So far as possible the school committee is representative of most of the interests of the city, the only restriction being that supporters of the social democratic party are not eligible as members. The committee consists of from one to three executive officials of the city, nominated by the mayor; an equal number of members of the city council, which is elected on the three-class system; professional members interested in education, selected by the first two classes; and representatives of the Protestant, Roman Catholic, and Jewish denominations, and of royal schools, if such are located in the city. Since 1906 the professional members must include a teacher or principal of a school, and where their number exceeds four, two teachers, of whom one may be a woman, may be selected. All the members must be approved by the county authority and hold office for six years. In addition to the members mentioned the district school inspector and the city school superintendent, who in the larger cities often performs the duties of the district school inspector, also have seats on the committee as representatives of the government.

The authority of the school committee extends over the administration of the material affairs of the schools, especially of elementary and middle schools, their equipment and the provision of sufficient and satisfactory school buildings. With the approval of the county authority it appoints teachers and school principals and arranges salary scales. It draws up the annual budget, courses of study, and text-books for approval by the proper authorities, and supervises the administration of the compulsory attendance regulations. But the school committee is not an independent body; its acts require the approval of a superior authority. It is a principle of local government in Prussia that a local body may do anything not forbidden by law or veto, but its acts are always subject to supervision from above. In no case does the committee have any disciplinary power over teachers nor can it interfere in the actual conduct of a school. The professional members of the committee may visit schools, take note of the progress of the pupils, and make suggestions to the principal, but their power ends there. The schools are in every sense state institutions; the local authorities may pay for the school buildings and their maintenance and equipment, and bear a large share of the cost of teachers' salaries, but the control of the schools and what is taught therein are subject only to the authority of the state and its properly constituted officials. The teachers are servants of the state, no matter what the source of their remuneration may be.

For the purpose of promoting neighbourhood interest in the schools the city school committees delegate part of their powers to school commissions (*Schulkommissionen*), which correspond in the English system to the managers and care committees and in the French to the *commissions scolaires*. Each school commission includes a city official appointed by the mayor, a local school inspector, a minister of the denomination represented by the majority of the pupils of the school, a member of the school staff selected by the school committee, and representatives of the residents of the locality in which the school is located. All the members must be approved by the county authority. The schools commission is expected to promote the interests of the school to which it is assigned, sees that its equipment is not inferior to that of other schools in the city, and has a voice in the selection of teachers. The members are allowed to assume some responsibility for the discipline of the pupils in and out of school, encourage school attendance, and in every way, particularly through organising parents' evenings, encourage a good understanding between the parents and the school. One important function exercised by these bodies is philanthropic, and for the welfare of the poorer children special funds are raised to maintain soup kitchens and for the provision of cheap meals.

In rural districts the school committee (*Schulvorstand*) consists of the mayor or a corresponding official, a teacher selected by the supervising authority, the minister of the denomination to which a majority of the pupils belong, and from one to six representatives of the local residents. The committee combines the functions of the city school committee and the school commission. It fixes the budget for school maintenance and provides the ways and means for this purpose. It is responsible for the satisfactory equipment of the school and the payment of teachers' salaries. The provision of a school building, its ventilation, the regular attendance of pupils, the promotion of parents' evenings, and in general the furthering of local interest in the school come within the competence of this body. It acts as the intermediary between the district and the higher authorities, the district school inspector or the county bureau. To the attention of these the committee may bring the needs of their locality, such as a rearrangement of the time-table or the vacations, or the exemption of pupils from school attendance before completing the statutory requirements. Frequently a rural-school district coincides in area with a manor, in which case the lord of the manor serves as the patron of the school and is to some extent responsible for its maintenance.

School Inspection.—The inspection of schools is conducted by district school inspectors (*Kreisschulinspektoren*) and local school inspectors (*Ortsschulinspektoren*). The former are appointed by the minister on the recommendation of the county bureaus, and are as a rule selected from normal-school teachers who have had a university training or from the clerical profession. One of the chief demands of the elementary teachers, voiced again and again since 1848, is for the establishment of a professional inspectorate selected from those who are familiar with the actual conditions of elementary-school practice from their own experience. As at present constituted the inspection of schools is largely in the hands of men whose chief duties lie in other walks of life. The number of full-time inspectors is increasing, but they form only about one-third of the whole number.

The local school inspectors are in most cases clergymen except in large graded schools, where their functions are performed by the school principal. Strong opposition is shown to this clerical form of inspection which tends to perpetuate a right claimed as traditional by the church, but regarded by the leaders of the profession as out of place under modern conditions. The teachers are ready to grant the right of the ministers to supervise religious instruction, but object to a practice which subordinates them to an authority that lacks the necessary knowledge, training, and experience to enter sympathetically into the work of the elementary school. The more radical leaders add the objection that the system of clerical control keeps alive a disintegrating denominational organisation of schools. The six weeks' training in education imparted to theological students since 1889 in order to qualify them for the duties of a school inspector is not regarded as an adequate guarantee of competence. It is hardly probable that a change will be made in the system, since the church is a stalwart ally of the state in desiring the maintenance of the *status quo*.

The duties of the district school inspector are nowhere fully prescribed, but they are understood to include the general supervision of the administration and conduct of elementary education. The inspectors thus serve as the field agents of the county authorities and to some extent of the provincial school boards. Each county is divided into a number of school inspection districts, while in the city school systems the school superintendent (*Stadtschulrat*) frequently performs the duties of inspector. The district school inspector acts in an advisory capacity to the local school inspector and the local school authorities, but he has no power to restrict their influence. He exercises disciplinary authority over the teachers, whom he may warn, fine, or censure. He must visit each school at least once a year, inspect the teachers' records of work accomplished, and examine the pupils in about three branches of the curriculum. He conducts periodical conferences of the teachers and superintends the training of candidates for the teaching profession. He approves courses of study and time-tables, inspects school buildings and equipment, and investigates the attendance of pupils. His reports are made to the county bureau.

The duties of the local school inspectors are much the same as those of the district inspectors with the difference that they are in more frequent and closer contact with the teachers. In addition to supervising the general conduct of teachers in and out of school and reporting any dereliction of duty, the local inspectors also take part in the meetings of the school committees and conduct examinations of pupils in schools under their charge. The reports of the local inspectors are made to the district inspectors.

Since each district school inspector has under him some two hundred teachers, and since the local inspectors, unless they be principals of schools, have not the requisite professional qualifications, it will readily be recognised that the chief function of the system of inspection is to ensure the due observance of the government regulations rather than the promotion of the professional growth of the teachers. In other words, the system is inquisitorial rather than supervisory. The supervision of education demands not merely more insistent relations between the supervisors and the teachers, but requires supervisors of extensive professional experience and ability.. It may be that the intensive preliminary training given to the teachers before they are appointed and the detailed prescription of the methods and subject-matter of instruction obviate the necessity of supervision that aims to encourage the best development of the teacher's individuality. Whatever the reasons may be, the system of inspection in the Prussian schools is at least efficient in so far as it promotes the mechanical uniformity required by the educational policy of the state.

School Maintenance.—The cost of education is shared by the state, the municipalities, country districts, and the lords of manors, the whole system being regulated by the School

Maintenance Act (*Schulunterhaltungsgesetz*) of 1906. The apportionment of state grants is founded on the principle of equalising, so far as possible, the burden of educational expenditures. On this basis the state assists poor communities with grants for buildings and for the creation of new teaching positions. Special grants are also made to necessitous districts with fewer than eight teachers, and so on. But the chief share of the state is represented by the grant in aid of salaries and pensions of teachers. This measure enables all communities to maintain the minimum salary scale, while those that are able to do so are thus encouraged to exceed this scale. The principle on which these grants are based is unquestionably sound, since it ensures a uniform minimum standard throughout the state in the field of education to which it is applied, that is, the elementary branch. It fails, however, to furnish some financial inducement to local authorities to put forth effort and initiative beyond that required to attain the minimum standard. Besides its share in the expenditure for elementary education, which in 1911 amounted to about one-third of the total cost, the state assists in the maintenance of other forms of education, while it is responsible for the whole cost of certain secondary and normal schools. Of the total expenditure for elementary, middle, and secondary schools in 1911 the state provided twenty-six per cent. of the funds.

The distribution of the cost for the three branches of education in 1911 was as follows:

	State.	Other sources.	Total.
	M.[1]	M.	M.
Elementary schools . .	127,334,291	293,563,901	420,898,192
Middle schools . . .	835,792	24,924,532	25,760,324
Secondary schools . .	20,346,973	92,941,001	113,287,974
Total . . .	148,517,056	411,429,434	559,946,490

It will thus be seen that the cost of elementary education amounts to a little over seventy-five per cent. of the total cost, of the middle schools to about four per cent., and of secondary education nearly twenty-one per cent. How inequitable this division is may be inferred from the fact that about nine out of every ten pupils are attending the elementary schools. The actual figures in 1911 were 89.7 per cent. in elementary schools, 2.9 per cent. in the middle schools, and 7.4 per cent. in the secondary schools. The inequality is still further intensified by the comparison of the per capita cost for each pupil in the three institutions. The cost per pupil in the elementary schools was 64 M., in the middle schools 143 M., and in the secondary schools 296 M., or nearly four and a half times the cost of the elementary-school pupil. These figures are eloquent testimony to the value set by the government on the education of the different social classes. In the United States the cost of educating a child in an elementary school in 1913 was $26.17, while the per capita cost of each high-school pupil was $56.54.

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[1] NOTE: One mark (M.) is equal to a shilling or 25 cents.

The same financial condition holds for the whole of Germany, as is indicated by the following table giving the figures for 1911:

	State.	Other sources.	Total.
	M.	M.	M.
Elementary schools . .	213,819,963	456,016,615	669,836,578
Middle schools . . .	27,988,944	2,577,647	30,566,591
Secondary schools . .	50,923,064	126,235,615	177,158,679
Total . . .	292,731,971	584,829,877	877,561,848

The distribution is about as follows: seventy-six per cent. for elementary schools, three per cent. for middle schools, and twenty per cent. for secondary schools. The per capita cost was also approximately the same as for Prussia, being 65 M. for each elementary-school pupil, 112 M. for each pupil in the middle schools, and 288 M. in the secondary schools.

III. ELEMENTARY EDUCATION

The elementary school in Germany is essentially the institution for training the large majority of the future citizens in the way that the state would like them to go. It is in this school that the boys and girls are drilled in those habits of discipline and obedience and that sense of duty which make them ready and pliable instruments of the government. Working in close harmony and co-operation with the church and employing teachers carefully selected and trained under its immediate supervision, the state is able through the elementary schools to mould the character of its citizens in any shape that it desires. It was Bismarck who impressed on the educational administrator the doctrine which in any case was not new in Germany that " the German child, when handed over to the teacher, is like a blank sheet of paper, and all that is written upon a child during the course of elementary education is written with indelible ink and will last through life. The soul of a child is like wax. Therefore he who directs the school directs the country's future." The overwhelming importance of this fact has ever been in the minds of the German governments and accounts in large measure for that efficiency of the schools which the world has learned to admire without inquiring more closely into the objects intended to be served.

The history of elementary education in Prussia in the nineteenth century is marked throughout by a desire on the part of the authorities to keep the intellectual development of the masses firmly under their control. Frederick the Great had already stated that the lower classes must not be given too much learning lest they become discontented with their lot, and in 1822, when the country was still throbbing with the enthusiasm aroused by the nationalistic movement, Baron von Altenstein declared in a rescript that His Majesty Frederick William III. "could not but approve of the zealous endeavours for the cause of primary education, but, at the same time, wished to point out that a line must be drawn somewhere, as otherwise the masses might be turned into half-educated sciolists, quite unfit for their future vocation."[1] Not many years later it was the primary teachers, men who had been fired with enthusiasm for learning and the possibilities of education by the work of Pestalozzi, Herbart, and others, who were blamed for the misery brought upon Prussia by the Revolution of 1848. "The irreligious pseudo-education of the masses," Frederick William IV. is reputed to have said, "is to be blamed for it, which you have been spreading under the name of true wisdom, and by which you have eradicated religious belief and loyalty from the hearts of my subjects and alienated their affections from my person. This sham education, strutting about like a peacock, has always been odious to me. I hated it already from the bottom of my soul before I came to the throne, and since my accession I have done everything I could to suppress it. I mean to proceed on this path without taking heed of any one and, indeed, no power on earth shall divert me from it."[2] This suppression was soon to follow and has been the keynote in the development of the elementary school up to the present. The governmental authorities have always sought with Eichhorn,

[1] Paulsen, F., *German Education, Past and Present*, p. 243. New York, 1912.

[2] *Ibid.* pp. 245 f.

then at the head of the ministry charged with the control of education, to make religion, patriotism, and obedience to authority the aims of education, while their opponents, when they, like Diesterweg, have had the courage, have always emphasised the development of understanding and intellectual power. In 1844 more time was assigned to religious instruction and the catechism, teachers' libraries were placed under supervision, and the authority of the church over the schools was increased. The dangers of over-education were counteracted effectually in 1854 when the reactionary *Regulative* were issued for normal and elementary schools and left no doubt as to the desire of the government to limit the work of these institutions to the minimum essentials. These regulations introduced what was considered to be a suitable education for the lower classes and for the teachers who were to have charge of it. Some modifications were introduced in the regulations from time to time and were embodied in the more liberal law of 1872. The independent position of the church in relation to education was changed and its control somewhat diminished by declaring it to be merely an agent of the state. At the same time a movement was begun to increase the number of professional inspectors. The curriculum of both the elementary and normal schools was liberalised and extended and for that period might well have been regarded as rich. The elementary schools are still governed by this law; a change in the regulations and curriculum of the normal schools was only introduced as recently as 1910.

The law of 1872 never proved satisfactory to any party. The elementary schools were constantly drawn into politics. When the *Kulturkampf* or controversy with the Catholic Church was being waged, the schools were attacked by the clerical and conservative parties as irreligious. When the agitations against the social democratic movement began, it was again the elementary schools and their teachers that were at fault, although there seems to have been some uncertainty whether the cause of radicalism was "half-education" or "over-education." Treitschke was of the opinion that the great danger lay in the village teacher who had read a little Schiller and Goethe and had received a training that was much in excess of what his position demanded. The attacks were characterised by attempts to curb the teachers and throw the schools back into the hands of the church. Difficulties were placed in the way of the progress of the elementary schools; the sizes of the classes increased; the salaries of teachers remained unchanged in spite of economic changes generally; and the expenditures on school materials and equipment were kept well under control. The inevitable result followed at the close of the nineteenth century, and a dearth of teachers existed in spite of the establishment of new normal schools. The obvious remedy, an increase of salary, was not tried until 1907. The elementary schools are in fact regarded as police institutions; the clerical and conservative parties look upon any expenditure on them that goes beyond the provision of religious instruction and the three R's as unnecessary extravagance, while the liberals have never entrusted the conduct of educational propaganda to the leading lights of their party. The result has been on the whole that the government through its officials has been able to control the elementary schools as it pleased, largely because of the failure of those who might be expected to display some interest in their progress.[1]

Accordingly everything is rigidly prescribed for the elementary schools—the curriculum, the time allotments, the number of records and books to be kept by each teacher. Everything is done to secure a smoothly running administrative machine. So far as possible the duties and responsibilities of the teachers are laid down in detail. With uniformity of prescription, administration, and training of teachers the result is the highest degree of uniformity in the schools. One Prussian school is much like another, and taking the German Empire as a whole it may be safely said that no such great differences would be found between any two German schools as, for example, there exists between two schools in London or Manchester. This ideal means uniformity of standard, but it does not imply a high standard. The quality of teaching provided for the rural school child is as good as that provided for the city school child, but on the whole the goal is not as high as under a system that throws the onus on the individual school, as in England, or on each school system, as in the United States. The latter method, while it may permit of the existence of very poor as well as very good schools, is at the same time the method that makes for the most rapid progress and the quickest advancement of standards. The Prussian system must depend for its next step on the whim of the Ministry of Education.

The aim of the Prussian elementary school is to train "God-fearing, patriotic, self-supporting subjects." In other words, their function is to impart to the pupils a reverence for authority, human and divine, and a certain amount of knowledge. Such an aim, since it is definite and precise, is not as difficult to attain as the more elusive and subtle aim involved in training the citizen of a democracy. The encouragement of individuality, the equalisation of opportunity, and training for social efficiency are complex terms that easily lend themselves to discussion without leading very far in the direction of providing a solution. The success of the German system lies in the careful organisation of means to attain a well-defined end. The statement of aim carries with it a definition of the scope of the curriculum. Reverence for authority is to be instilled by means of instruction in religion; the patriotic subject is to be trained to appreciate German language and literature, and especially German history and the contribution of the reigning house to the welfare of its subjects; the remainder of the curriculum is determined by the necessity of preparing for a livelihood, in so far as that can be done for pupils under fourteen years of age.

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[1] See for this section Tews, J., *Ein Jahrhundert preussischer Schulgeschichte*, pp. 112 ff. Leipzig, 1914.

In 1911 there were in Prussia 38,684 elementary schools, the majority of which had three or less than three classes. The distribution was as follows:

Schools with one class	13,543
,, ,, two classes	4,104
,, ,, three classes	4,192
,, ,, more than three classes	10,190

Although the period of compulsory attendance requires eight years of education, only 2809 schools are organised on the basis of seven classes and 677 on the basis of eight. The result is that a large number of pupils are compelled to repeat work for two or more years. Co-education is in theory not viewed with much favour and in the larger school systems separate classes are provided for boys and girls, but nearly two-thirds of the pupils are in mixed classes. Of 128,725 classes 23,131 were for boys, 23,171 were for girls, and 82,423 were mixed. The total enrolment was 6,572,140 (3,292,877 boys and 3,279,263 girls). Of these, 1,205,935 boys and 1,219,990 girls were in separate classes and 2,086,942 boys and 2,059,273 girls were in mixed classes.

The small ungraded schools are directly under the charge of the teacher supervised by the local pastor as the local school inspector. In the large graded schools the direction is placed in the hands of a principal (*Rektor*), whose task it is to see that the regulations are followed. He outlines the course of study and distributes the work among the teachers, inspects the class records and the work of the teachers, and in general supervises and advises them. He holds teachers' meetings once a week or whenever occasion demands and confers with his teachers on such matters as promotions of pupils. He reports to the district inspector. Under the supervision of the principal the teachers are required to keep a whole array of books and records that will indicate at a glance whether the machine is running smoothly. These books include a class-roll, giving not only the names of the pupils but also the callings of their parents, a list of absentees, the course of study, an outline of work for each half-year, a weekly record of work completed, a record book of the pupils' attendance, conduct, industry, and progress, a record of punishments, a time-schedule, and an inventory of the equipment provided for the classroom. Furnished with these and with a knowledge of the kind of training that the teacher has had, the inspector or other supervising authority can presumably discover with great readiness what progress a teacher is making in his work.

The care and attention that are devoted to securing an efficient administrative machine are well rewarded in at least one direction. Prussia has few rivals in the efficiency with which the attendance of pupils is secured. Compulsory attendance up to the age of twelve was required as long ago as 1717 "where there are schools" and was authorised in 1763 under the *Generallandschulreglement*. The *Allgemeine Landrecht* of 1794 required attendance at school from the close of the fifth year until the pupil could be certified by his pastor as having attained that "knowledge sufficient for any reasonable person of his social position." Under the present law pupils must be enrolled in school on the registration days, of which there are two each year, nearest to the sixth birthday, and remain at school usually until confirmation or about the completion of their fourteenth year. The efficient administration of the school attendance law is due not merely to the popular desire for education, but also to the fact that it is entrusted to the police, who keep all the vital records of the population. The birth of a child is registered with the police, who make up lists of pupils of school age and transmit them to the school authorities about two weeks before the opening of school. The day of enrolment is announced by public notices, which also intimate the penalties for failure to enrol a child of school age. Under this system the school authorities know in advance what the school population is going to be and can take steps in ample time to make adequate preparation for its reception. Further, pupils can

attendance

enter and leave school only at Easter and Michaelmas each year, another regulation that facilitates administration. Pupils can only be transferred from one school to another with the consent of the principal of the school which they desire to leave. In cases of removal the police of the district that is being left must be informed, and they in turn notify the police of the district into which the pupil is moving, and these in turn inform the school authorities. By this method all leakage is effectually checked. Habitual tardiness is treated in the same way as unexcused absence. Pupils are only excused from school attendance in cases of sickness of themselves or their parents, or in cases of inclement weather and traffic difficulties. Lists of unexcused absences are made up every two weeks and are transmitted to the local school inspector or the principal, who sends them to the police. The proceedings against the parents are instituted by the police, who have power to warn, fine, or imprison the parents of refractory pupils. The efficiency of the system is indicated by the fact that less than one pupil in ten thousand succeeds in escaping school attendance. When there is added to the regularity of attendance, which is based on a powerful sanction, the fact that the school year is forty-two weeks long, with six days of from four to five hours in each week, it will readily be recognised that the German school child is already at an advantage over the American or even the English child attending an elementary school. The results are indicated in the extremely low percentage of illiteracy, which for the whole of Prussia, including Eastern Prussia, was less than two per thousand of the men and four per thousand of the women who were married in 1913.

Although Germany was among the pioneer countries in providing for the social welfare of her working classes through compensation laws, old-age pensions, and health insurance, but slight progress has been made in the provision of an extensive system of school medical inspection. The public health officers of each district are required by the regulations to visit the schools of their districts once in every five years, but their inspections are mainly limited to an examination of the sanitary and hygienic arrangements of the buildings and equipment. The hurried inspection of individual pupils can hardly be regarded as adequate. In addition to the inspection, these officials are expected to give advice to the teachers. The larger cities have developed more thoroughgoing systems, providing for the periodical examination of all children. Treatment is usually furnished through the agency of private associations or in the efficient public clinics.

Voluntary effort also plays an important part in the provision of other benevolent activities which, in England, for example, have been taken over by public authorities. Among these the most important is the provision of meals which is largely in the hands of private associations. The need of free meals is no less even in Prussia than in England, but the public maintenance of this activity is not yet widespread. Holiday homes and sanatoria for delicate children are in a similar way maintained by voluntary societies.

For purposes of instruction the Prussian elementary schools are still organised under the regulations of 1872. The schools, no matter what the number of grades may be, are divided into three sections: the lower, including the first three years of school life; the middle, covering the fourth and fifth years; and the upper for the last three years. The purpose of education, it will be recalled, is the production of the God-fearing, patriotic, self-supporting subject. For the promotion of this object the curriculum includes the following subjects: Religion, German (including reading, writing, spelling, grammar, composition, and literature), arithmetic, geometry, " real subjects " (*Realien*, including geography, history, and elements of nature study and natural science), singing, drawing, physical training for boys, and handwork for girls. The major part of the time is devoted to religion, German, and arithmetic. The following table represents the distribution of time in hours required in graded and ungraded schools:

	Ungraded school.			Graded school.		
	1-3 Lower section.	4-5 Middle section.	6-9 Upper section.	Lower section.	Middle section.	Upper section.
Religion	4	5	5	4	4	4
German	11	10	8	11	8	8
Arithmetic	4	4	5	4	4	4
Geometry	—	—	—	—	—	2
Drawing	—	1	2	—	2	2
Real subjects	—	6	6	—	6	6 (8)
Singing	1	2	2	1	2	2
Physical training	} —	2	2	2	2	2
Handwork						
Total	20	30	30	22	28	30 (32)

It would be idle to attempt a presentation in detail of the curriculum. A boy or girl on leaving school is expected to have a good knowledge of the Bible, a number of hymns and the catechism, a fair command of the vernacular, some ability in the manipulation of number, and a fair general knowledge of geography, history, and nature study. Manual training, with the exception of some gardening in rural schools, is not general for boys, but needlework is in most cases provided for girls.

In a survey of German education, however, it is not the content or subject-matter that is of importance; it is entirely the method of instruction and the position of the teacher as the intermediary between the curriculum and the pupils that lends the schools their significance. The teacher is the interpreter of the will of the government as defined by the ministry responsible for education. The function of the school is to develop certain habits and attitudes of mind and conduct. It depends largely on the processes employed what these resultant habits are. Discipline, obedience, and submission to authority are the ends to which the instruction of the Prussian elementary schools are devoted. The method employed is to keep the matter of instruction under control. The pupils are not expected to acquire an extensive knowledge of the subjects of the curriculum, but the little that they do learn they must learn well and be ready to produce when called upon. To save time the teacher furnishes the material to be studied. The pupil is not given a text-book and told to prepare a lesson for the next recitation. Such a method would not merely be regarded as wasteful, but would throw the pupil too much on his own resources. Instead, the teacher presents the subject-matter and the pupils reproduce it with an almost exact imitation of the teacher's intonation. The pupils are not expected to ask questions, since it is the function of the teacher to prepare his lesson in such a way that all difficulties are anticipated. With the exception of a general reader few books are employed. The teacher is the oral text; the pupils listen and repeat. This method is universally applied to all subjects except arithmetic, in which alone the Pestalozzian tradition has survived. This mechanical process prevails from one end of the state to the other. And the results are those that are desired. The memory of the pupils is loaded, but with material of the teacher's choosing. The pupils leave school without any training in the use of books, without any encouragement to exercise their own judgment or think with any independence. The methods of the drill sergeant are transferred from the parade ground to the classroom, and for a goodly percentage of teachers this statement is not merely metaphorical.

The system is without doubt efficient and successful, but it cannot too often be repeated that this efficiency is purely relative.

If the Prussian system illustrates the importance in education of adapting means to ends, and of carefully defining these ends, it emphasises at the same time the dangers of centralised and bureaucratic control. A monotonous uniformity is attained—the uniformity of a machine. The individuality of the pupils and teachers is necessarily sacrificed, but consciously sacrificed, to the demands of the administrative regulations. The national, political aim is placed above all else; to this ideal all others are subordinated. It is as unnecessary as it is unjust to criticise a system from the standpoint of an entirely alien ideal. The lesson for the student of education is rather contained in the fact that the German elementary-school system presents one of the few examples in the world of education in which ideals and practice are co-ordinated. The reasons for the adoption of the German ideals have been discussed in an earlier section. It is important to supplement this with a consideration of the method of selecting and training the instruments to whom is entrusted the task of carrying out the ideals, and the position of teachers in general.

IV. THE TRAINING AND POSITION OF ELEMENTARY TEACHERS

There are few better illustrations of German thoroughness in education than the care with which the teachers of the rising generation are selected and trained. But the careful training alone would not in itself suffice to give the teachers the influence that they wield. The matter of selection is entirely based on the interplay of economic factors. It is because the teaching profession in Germany holds out better social and, to a lesser extent, financial inducements that the type of teachers required by the system can be obtained. Some undoubtedly enter the teaching profession because they feel a call, but the large majority are swayed, for example, by the consideration that in the smaller districts they enjoy a position socially next in rank to the pastor; that they are practically assured of life tenure in a position that carries with it compensation graduated on a definite scale and that culminates after a period of service in a liberal pension and provision for dependents; that as teachers they are provided with a home or a monetary equivalent for rent; and, finally, that by virtue of their position as civil servants they have the support of the whole governmental machine to re-enforce their influence. That these inducements weigh heavily with prospective candidates is indicated most clearly by the fact that in competition with the world of industry and commerce the country can still command the services of men in a higher proportion than any other of the leading countries of the world.

The total number of elementary-school teachers in Prussia in 1911 was 117,162, of whom 92,406 were men and 24,756 were women. Prussia has always tried to retain men in the profession. The great dearth of teachers during the ministry of Studt afforded women an opportunity of entering the elementary schools in increasing numbers. New normal schools were opened, but proved ineffectual as a measure to maintain the former preponderance of men. The government was compelled to resort to the logical measure of increasing the salary scales. The relative proportions of the sexes in the elementary teaching profession is shown by the following figures:

	1886.	1891.	1896.	1901.	1906.	1911.
Men . . .	89.5	88.2	87.1	84.7	82.7	78.9
Women . .	10.5	11.8	12.9	15.3	17.3	21.1

Future developments depend entirely on economic opportunities for men after the war and the ability of the state to offer satisfactory inducements. The probability, however, is that women teachers are certain to increase in number whatever the attitude of the administrative authorities may be towards them. Women in Germany have been somewhat later than women elsewhere in entering the wage-earning occupations, a fact which may have accounted hitherto for their small numbers in the schools. But a change in their social position generally and the increasing opportunities for higher education in the future will undoubtedly be important factors determining their entrance into the teaching profession in all its branches. But they will certainly be met with strong opposition. It is no mere whim of the government that it has hitherto encouraged the preponderance of men teachers. A militaristic state, a state whose existence is intimately bound up with the training of its subjects in the habits of stern discipline, is compelled to entrust the education of its future soldier-citizens to men. And it must be noted in this connection that no teacher is eligible for permanent appointment unless he has completed the period of military training required of him, while an increasing number within recent years have qualified as officers of the reserve. Another source of opposition to the increase of women is found among the older teachers and administrators. Few women are given charge of boys in the upper classes, and wherever possible are not appointed to teach classes of older girls. It is reported that school principals apologise for the presence of women on their staff. The reason is undoubtedly to be found in the rigid conservatism of the elementary schools, which are still rooted in the traditions of 1872. The women are not only drawn from a somewhat higher social class than the men, but, what is more important, their training is much more liberal. Instead of being separated out for their profession at an immature age, the women enjoy first the liberal education of the secondary schools, where they mingle generally with the other students, an intercourse which is in itself liberalising. The professional training follows the general education, which will be described later. Not only do they enjoy a more liberal curriculum, but the methods of instruction are not characterised by the narrowness of the elementary and normal schools attended by men. It is the difference in preparation and outlook, free from the narrowness that results from inbreeding and traditionalism, that makes the school principal look askance at the woman teacher. She does not fit into the scheme of things; the smoothness of the routine is broken; a new problem is raised to the solution of which the regulations do not contribute; and the woman teacher must be referred to apologetically.

With the exception of a small number of university trained men who desire some experience in an elementary school, the large majority of future teachers begin their preparation at the age of fourteen, that is, immediately after leaving the elementary school. The course of training in Prussia and in most of the German states lasts six years. In Prussia this period is divided between two institutions, the preparatory school (*Präparandenanstalt*) and the normal school (*Lehrerseminar*). The preparatory institutions are state or privately maintained, the normal schools are in all cases state institutions. The candidates for the teaching profession are drawn almost entirely from the elementary schools; the small minority that forms the exception comes from the middle or real schools (*Mittelschulen* or *Realschulen*). In other words, the choice of a vocation is made at the earliest possible moment, or certainly before the young boy can have shown any aptitude for the career of a teacher.

The preparatory institutions give a course of three years to boys who have passed an examination, written and oral, in the subjects of the elementary school. A certificate of health from a state-recognised physician and a baptismal certificate, since the institutions are organised on a denominational basis, are required. Care is taken to exclude the children of those who are suspected of entertaining unsound political doctrines. Fees are charged and in a few cases include board and lodgings in addition to tuition charges. Not more than ninety pupils are received in any one of these institutions, that is, thirty for each year of the course. The faculties consist usually of the director and two or three assistants, who must have the qualifications of permanent elementary-school teachers. In exceptional cases university trained graduates choose this avenue to inspectorships and higher educational appointments.

The curriculum of these institutions was revised in 1901 and it was hoped that the addition of a modern language would afford the basis of a liberal education. This object was defeated, however, by the failure to appoint specialists in these subjects and to allot an adequate amount of time to them. The time-table is as follows:

	Hours per week.		
	Class III.	Class II.	Class I.
Religion	4	4	3
German	5	5	5
History	2	2	3
Mathematics	5	5	5
Nature study	2	4	4
Geography	2	2	2
Writing	2	2	1
Drawing	2	2	2
Physical training	3	3	3
Music	3	4	5
French or English	3	3	3
Total	33	36	36

It will be noticed that the subjects of this curriculum are practically the same as those of the elementary schools. Indeed, the instruction in the preparatory institutions, and this is true also of the normal schools, differs from that in the elementary schools not in quality but in quantity. Little, if any, attention is given to the more mature intellectual needs of the pupils. Taught by instructors whose only experience has been in elementary schools, the pupils continue to be under the same type of discipline. They are overburdened by the inordinate strain placed on their memory, for here too the emphasis is on repetition and reproduction of material kept under control and presented entirely by the teacher.

At the close of the three years' course the pupils on passing the leaving examination are qualified to enter the normal schools. These schools are almost without exception denominational and under complete state control. The buildings and equipment are provided and maintained by the state. A practising school always forms a part of the organisation. The students are divided into three classes of thirty under a faculty consisting of a director and six or seven assistants. The qualifications for appointment in a normal school are either an elementary-school principal's certificate or a certificate to teach in a middle school. Usually the directors and the chief assistants are university graduates. Special courses of one year's duration are provided in Berlin to train some thirty specialist instructors in the normal schools. The salaries in normal schools are higher than in any other branch of elementary education. The directors receive from 4000 to 6000 M. ($1000 to $1500) a year; the chief assistants 3000 to 4800 M. ($750 to $1200); and ordinary assistants 2400 to 4200 M. ($600 to $1050). To these sums must be added a free house or equivalent for rent, the use of a garden, and the right to a pension.

The first two years of the normal-school course are devoted to academic training and the theory of education, the last year is almost entirely professional. With the exception of a modern language, French or English, and agriculture the subjects of the curriculum are merely an expansion of the subjects of the elementary school. The curriculum and hours per week for each subject are as follows:

	Hours per week.		
	Class III.	Class II.	Class I.
Pedagogy	3	3	3
Methods and model lessons	—	4 [1]	4
Practice teaching	—	—	4–6
German	5	5	3 [2]
French or English	2	2	2
History	2	2	2 [2]
Mathematics	5	5	1 [3]
Natural science	4	4	1 [3]
Geography	3	2	1 [3]
Drawing	2	2	1
Physical training	3	3	3 [2]
Music	4	4	4
Agriculture	1	1	—
Religion	3	4	3
Totals	37	37	32–34

[1] Contained in the lessons on the various subjects.
[2] One hour for methods.
[3] Methods only.

The curriculum is organised under the regulations of 1901, which were received with approval because it was thought that they extended the scope of the academic training and kept it distinct from the professional work. Up to the period of the change the emphasis had been wholly on the elementary-school subjects, even to the extent of following the methods of the elementary schools. But, however salutary the changes contemplated by the regulations may have been, they could not change the spirit of the institutions which had grown up under the older procedure. Although the students are between the ages of seventeen and twenty, they are treated in the same way as children in the elementary schools. The methods of instruction and discipline are not unlike. The vision of the future teacher seems to be constantly limited to the sphere of his future career. Always associating with students of similar training, tastes, and habits, brought up under a system whose aim is to suppress individuality, he comes to the normal school only to be taught again by men of whom the larger majority have never had any interests that were not bound up in some way or other with the elementary-school field and who are themselves products of the normal schools, while the remainder may have been educated in secondary schools and universities, but have no sympathy for the students drawn from a lower social class. The system is marked, as might be expected, by all the narrowness that results from inbreeding. Trained under what is practically a barrack-like system, the students are not encouraged to pursue their own special interests through societies or clubs, which form such an important part in the development of English and American teachers. The defects of this practice of keeping the future teachers within the narrow path marked out for them by the state have been pointed out by the leaders of the profession throughout the nineteenth century, but without avail in Prussia and with only unimportant results in other states. The only concession of any significance to the demands for recognition of the normal schools as institutions of higher learning has been the admission of graduates to the privilege of one year military service as volunteers (*Einjährig-freiwilliger Dienst*). Admission to the universities or provision of opportunities for advanced study is not yet granted in Prussia, and in other states only under restrictions.

The professional subjects, consisting of psychology, principles and history of education, and general method, are crammed into the students in the same way as the academic subjects. But limited though the scope of the subjects may be, they are taught with a thoroughness that is remarkable. What the students lack in judgment and initiative they make up in their ability to reproduce.

Adequate facilities are provided in connection with the normal schools for practice in teaching. The practice schools, which are graded or ungraded, are under the direct control of the normal schools and under the direction of one of the faculty, who is responsible for the general administration. All the members of the normal-school faculty, however, participate in the supervision of the teaching of their own subjects. The teacher of German, for example, gives the instruction in this subject and the methods of teaching it to the students in the normal schools and supervises the teaching of the subject in the practice school. Since the class-work in the practice schools is conducted entirely by students, the system avoids the divorce between theory and practice that is sometimes found in English and American normal schools. Each student is expected during his year of practice, the final year of the course, to obtain some experience in the teaching of religion, German, and arithmetic, and at least one other subject, usually history. Conferences are conducted once a week at which the work of the schools is discussed. The organisation of the practice schools and the intimate correlation between them and the work of the normal schools are perhaps the most suggestive features of the whole system. It is true that the students are not left to their own resources and are not given adequate opportunities of meeting their own problems, but they are ready on leaving the normal schools to take their positions in the regular system and conduct the schools with the uniformity required by the regulations.

At the close of the three years' course the students are required to pass the first teachers' examination, which is conducted by the normal-school faculty and representatives of the provincial and county education boards and of the denomination to which the school belongs. The examination is written and oral. The written part consists of an essay on a subject from pedagogy or German literature, short essays on religious and historical topics, translations from a foreign language, music, and notes of lessons. The oral examination is general and covers the greater part of the normal-school curriculum and an open lesson. Candidates on passing the examination are entitled to the privilege of one year of military service and the right to probationary appointment.

The first appointment is as a rule held in a rural or ungraded school, in which the teacher is thrown for the first time in his career on his own resources, with the exception of such assistance as the local inspector can give or the district inspector can spare on his rare visits. Two checks are, however, placed on this freedom. The teacher has before him the knowledge that within two years and not more than five years after leaving the normal school he must pass the second teachers' examination for permanent appointment, and during the same period must perform the military service required from him. The second examination is more purely professional than the first and aims to test whether the candidate can develop a pedagogical subject. The examination consists of a written essay and oral questions on the theory and practice of education, the history of Prussian elementary schools, and an open lesson in the candidate's own school. Only after passing this examination and performing his military service can a teacher receive permanent appointment.

It is by these methods that Prussia obtains the kind of teachers to whom she can entrust the education of her citizens. Unlike most other countries, Prussia employs only teachers who have been trained and who for at least two years have been under observation as much on general as on professional grounds, and who have been drilled under the rigorous regime of military service. But though the teachers have been trained, their education has been carefully supervised and restricted to the one particular object—service in the elementary schools. From the time of their first entrance into the school at the age of six up tothe time when they return as teachers they have never been removed from the atmosphere of the elementary schools with the exception of the brief period in barracks, when they are not individuals but soldiers. Taught by products of the elementary and normal schools, they in turn complete the same narrow circle before they return to the teacher's desk. The exceptions are, of course, the women teachers, who, it has already been mentioned, are not welcomed, and the few who enter the normal schools from middle or secondary schools. No better system could have been devised for training the future teachers in a certain routine of professional habits. Limited as their point of view must be by the restricted social and intellectual experiences, no better machines could have been created for carrying out with considerable efficiency the educational task prescribed for them.

Status of Teachers.—The strength of the elementary-school system is secured, however, not merely by the selection and training of suitable teachers, but also by the offer of satisfactory rewards. The teachers are nominated by local authorities and their appointments are confirmed by the county bureaus. Their status is that of civil servants and for disciplinary purposes they are under the authority of state officials. Once appointed they enjoy a life tenure and cannot be dismissed except for breach of discipline or gross neglect of duties. The salaries of teachers are paid by the state and local authorities. The state fixes a legal minimum scale and assists in the maintenance of this standard by contributing to the funds of the local authorities. The amount of the state subsidy varies with the ability of the local authorities to meet the cost. In poor districts the state frequently pays the whole salary of a teacher, while in the wealthier areas the state subsidy forms only a small proportion of the salary roll. The present minimum salary scale was established in 1909 (*Das Lehrerbesoldungsgesetz vom* 26 *Mai*, 1909). A minimum of 1400 M. ($350) a year was introduced, rising after thirty years' service to a maximum of 3300 M. ($825) in nine increments. In addition to the salary all teachers are entitled to a house or compensation for rent varying with the class of city in which the school is located. The compensation in cities of the first class is 800 M. ($200); 650 M. ($162.50) in cities of the second class; 540 M. ($135) in cities of the third class; 450 M. ($112.50) in cities of the fourth class; and 330 M. ($82.50) in cities of the fifth class. For purposes of calculating the pensions the compensations for rent are included as part of the salary. Comparing values and differences in the purchasing power of money, the Prussian elementary school teacher receives a higher remuneration for his services than teachers in a similar position in England or America, and with the prestige of the state behind him enjoys a far higher social position. The provision of a house in close connection with the schools forms an important element in securing good teachers and retaining their services in country districts.

An important element in the compensation of teachers is the prospect of a pension and the provision for the care of widows and orphans. A teacher may retire, if incapacitated for further service, after ten years of service on a pension amounting to twenty-sixtieths of his salary at the time of retirement. After the tenth year one-sixtieth is added for each year of service up to a maximum at the age of sixty-five of forty-five-sixtieths of the retiring teacher's total income. The state contributes 700 M. ($175) towards the payment of each pension, while the school authorities responsible for the payment of the pension up to the statutory limit are required to deposit the requisite sums with the county bureau which undertakes the management and distribution of the fund at a small cost. Widows and orphans of deceased teachers are entitled to support. A widow may be granted an allowance of forty per cent. of the pension to which her husband was or would have been entitled at the time of his death. The children, if their mother is living, are entitled each to one-fifth of the sum paid to the mother; otherwise each receives one-third of the amount to which the mother would have been entitled. In no case may the combined allowance of the mother and children be equal to the amount of the pension to which the deceased teacher was entitled. Payments under these regulations do not accrue until three months after the death of the teacher, the full amount of the deceased's pension being paid during this period. The cost of these allowances to widows and orphans is shared by the state and local authorities, while the management, as in the case of pensions, is entrusted to the county bureaus.

Assured of a comfortable salary adjusted to local circumstances and undisturbed as to the future because of the security of tenure and the provisions for himself on retirement and for his family in the event of his death, the Prussian teacher finds little to interrupt him in the performance of the precise and definite task for which he has been just as precisely and definitely trained. If he performs his duty satisfactorily the system of inspection is not so well organised that it can reach him more frequently than once in two years. His immediate superior, the local school inspector, has little influence over him professionally, while in a graded school the principal is but a senior colleague. The stimulus for professional growth is not too great. Once a year the district inspectors conduct conferences for the teachers of their districts, but these are not sufficiently sustained to be of great value. Greater influence is exercised, perhaps, by teachers' associations, which serve the social, economic, and professional interests of the teachers. The largest and most important of these is the *Deutsche Lehrerverein*, a national association with branches throughout the country. For the ambitious teachers another stimulus is found in the promotional examinations for appointments in middle schools and as principals of elementary schools. The examination for appointment as teacher in a middle school is written and oral and consists of pedagogy and two subjects selected from religion, German, French, English, history, geography, mathematics, botany and zoology, physics and chemistry. A dissertation, for the preparation of which eight weeks are allowed, and the presentation of a lesson before the examiners complete the examination. After three years' experience in a middle school the examination for the position as principal of an elementary school may be taken. The examination includes a thesis and oral questions on the general fields of pedagogy, special method, school administration and state regulations, the chief types of school apparatus and aids for instruction, and popular and child literature, and, where such is taught, a foreign language.

V. INTERMEDIATE EDUCATION

The title of this section is somewhat of a misnomer, since the Prussian intermediate school (*Mittelschule*) is not an intermediate institution. It corresponds to the French and English higher primary schools. It is intended to furnish a somewhat more intensive study of the subjects of the elementary schools, especially in science and history, with the addition of a foreign language. Established originally under the *Allgemeine Bestimmungen* of 1872, this type of school has been reorganised under new regulations issued in 1910 to prepare boys and girls to meet the new demands in trade, industry, and the fine arts. The school is organised on the basis of a nine-year course, the first three of which may be given in an ordinary elementary school. Pupils may thus be transferred to the *Mittelschule* proper at the age of nine and are expected to remain until they reach the age of fifteen. The advantages claimed for the intermediate school are the addition of an extra year, smaller classes, and better facilities for doing home work, since the pupils are drawn from a slightly higher social scale than those attending the ordinary elementary schools. Tuition fees are charged, but are limited to half the amount charged in secondary schools. The teachers are required to have passed the examination to qualify for permanent appointment in an elementary school and a special examination for teachers in intermediate schools. The salaries are 300 M. ($75) higher than in the elementary schools. The curriculum includes religion, German, history, geography, arithmetic with bookkeeping in the last year, nature study, writing, drawing, singing, handwork (gardening or domestic subjects), physical training, and one foreign language (French or English) begun at the age of ten or eleven.

This type of school is not popular with teachers or with parents. The teachers of the elementary schools object that the *Mittelschule* attracts the brighter pupils who cannot afford to attend a secondary school, and that parents are inclined to send their children to such a school because of the slightly higher social standing of its clientele. The parents, on the other hand, feel that, if they keep their children in school until the age of fifteen, they should be granted the same privileges as pupils who attend the first six years of a secondary school, which also takes them up to the age of fifteen. As a concession to the latter objection, boys who have passed through the *Mittelschule* are granted the one-year military service privilege on passing an examination including two foreign languages. Certain positions in the civil service have also been opened to pupils from these intermediate schools. On the whole, however, these schools are subject to the same criticism as the higher elementary schools in England, that they are not sufficiently distinct as a type from the lower secondary schools to warrant a differentiation. In Germany the denial of the privileges that are attached to a secondary school makes the criticism more pointed. The further objection might also be added that the great variety of trade schools and of compulsory continuation schools, offering better preparation for the vocations intended by the regulations to be served by the *Mittelschule*, tends to deprive it of any advantages that it might otherwise have possessed. The *Mittelschule*, therefore, makes its appeal to parents mainly as a class school, separating from the class attending the ordinary elementary school the intermediate class that cannot afford the fees of a secondary school but can pay the small fee demanded in the *Mittelschule*.

To the class of *Mittelschule* also belong a number of schools in small localities that cannot afford to maintain secondary schools. These schools (*Rektoratsschulen, Oberschulen, Lateinschulen*) serve as preparatory schools for the nearest secondary schools. Their chief advantage is that they are inexpensive and help to keep pupils at home as long as possible.

In 1911 there were in Prussia 632 *Mittelschulen* of all types, attended by 180,729 pupils (92,053 boys and 88,676 girls) and taught by 5698 teachers (3911 men and 1787 women). The cost of maintaining these schools was 25,760,324 M. ($6,440,081). Of this sum 835,792 M. ($208,948) was furnished by the state and 24,924,532 M. ($6,231,133) was derived from other sources.

VI. SECONDARY EDUCATION

While the elementary schools are intended to train the God-fearing, self-supporting, patriotic subject, the aim of the German secondary schools is to impart a broad liberal education and practical preparation for positions of expert leadership in the civil service or in the professions. The development of secondary education in Germany during the nineteenth century has been the progressive development of the conception of liberal education to suit the needs of modern life and society. The nucleus of the present secondary-school system, the classical gymnasium, had its origin in the Renaissance-Reformation period, but owes its modern form to the reorganisation that took place in Prussian education under Von Humboldt at the beginning of the nineteenth century. It was at this period that the classical secondary school was given a position of pre-eminence by its association with two important privileges. In 1812 the leaving examination (*Abiturientenexamen*), established temporarily in 1788, was revived and made obligatory for those who desired to enter the universities. Two years later an additional privilege, which has played an important part in the development of secondary schools, was bestowed on them. Attendance at the gymnasium until a certain standard was attained entitled the students to the privilege of one year of military service as volunteers, a privilege whose possession distinguished the educated from the uneducated. Further, in 1810, all candidates for appointment in secondary schools were required to pass an examination, a requirement that established for the first time a secular teaching profession in Prussia. Administrative machinery for the control and supervision of secondary schools was organised in 1817, and under the influence of Johannes Schulze, who was chief of the bureau of education, a bureaucratic despotism was evolved. The limitation of the privileges to the gymnasium tended to give this school a monopoly in the field of secondary education. Latin and Greek formed the chief subjects of the curriculum, while all other subjects were subordinated. Under the direction of Ludwig Wiese the school examinations were limited to the classics.

In the meantime the demand for a modern curriculum that would afford some preparation for the new world of commerce and industry became increasingly insistent. The real schools, which had been established after the model of the *Realschule* founded in 1748 by Johann Julius Hecker in Berlin, could have met this demand, but, without the privileges granted to the gymnasium and in the face of the scholastic opposition to modern subjects, they failed to attract students. After the middle of the nineteenth century, however, in 1859, the real schools were organised as schools for imparting general culture and for laying the foundations of a general education in the fundamentals of knowledge. Two types of schools were now evolved, the *Realgymnasium* giving a nine-year course and including Latin and modern subjects, and the *Realschule* giving a shorter course without Latin. In 1870 the graduates of the *Realgymnasium* were admitted to the universities, but were limited there to the study of mathematics, modern languages, and science in preparation for the teaching profession. In 1878 there was organised a third form of nine-year school, the *Oberrealschule*, offering a course in modern languages and sciences without Latin. A struggle now began for the equal recognition of all the nine-year courses for complete admission to the universities and freedom to prepare for all the professions. The supporters of the classical tradition, however, proved too strong, and an impasse was reached from which there appeared to be no outlet. Progress would probably have been long delayed but for the personal intervention of the present Kaiser, who came to the throne in 1888. One year after his accession he addressed an order to the Prussian ministry demanding some reform that would bring the schools into sympathy with modern times, that would make the schools useful instruments of progress, and that would check the spread of socialism. A conference of the leading educators was summoned in 1890 at which the Kaiser delivered the opening address. He attacked the philologists who laid stress on learning and knowledge, but neglected the formation of character and the needs of the time. The examinations emphasised theory rather than practice, while the aims of the schools were defined in terms of discipline and gymnastics of the mind instead of in terms of preparation to meet the problems of life. " First of all," he urged, " a national basis is wanting. The foundation of our gymnasium must be German. It is our duty to educate men to become young Germans and not young Greeks or Romans. We must relinquish the basis that has been the rule for centuries, the old monastic education of the Middle Ages, when Latin and a little Greek were most important. These are no longer our standard; we must make German the basis and German composition must be made the centre round which everything else revolves." In order to give a proper perspective for modern problems, German and history, especially from the period of the French Revolution, were to receive special attention. His other suggestions were for the time equally radical and aimed at a thoroughgoing reform of aim.

The result of the conference and the protracted work of committees was the Regulations of 1892 on the Aims and Order of Studies. The requirements in religion, German, history, and geography were made the same for all types of schools, and almost the same in such other subjects as they had in common. To prevent over-pressure the number of hours for physical exercise was increased. The number of hours was also increased for German and this subject was made a rigorous requirement in the leaving examination. Modern history was not only given more attention, but was studied in greater detail. The classics in particular suffered, since the number of hours per week was reduced and allotted to other subjects.

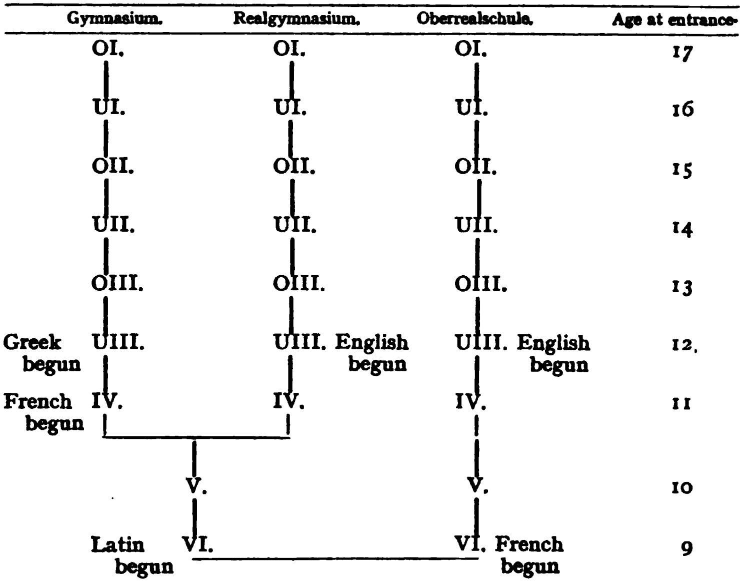
But the question was not yet satisfactorily settled. The need for differentiation and adaptation to modern needs was recognised and more or less met in the new regulations. The different types of schools, however, did not receive the same recognition; the *Gymnasium* was looked upon as supreme. In 1900 the representatives of the real schools raised a demand for equal privileges with the *Gymnasium* and for a common foundation for all schools. So long as the *Gymnasium* enjoyed all the privileges it would be attended by pupils whose purposes they did not serve. In the same year another conference was called, the conclusions of which were that the real schools were necessary for modern developments, and that the *Gymnasium*, if further reformed, would lose its characteristic strength. The practical result of the conference was that the three nine-year schools, the *Gymnasium*, the *Realgymnasium*, and the *Oberrealschule*, were all granted the same privileges of admission to the universities in all faculties except theology. The classical *Gymnasium* retains its traditional spirit, but the real schools, which are truly representative of modern requirements, are increasing in number. The semi-classical *Realgymnasium* is slowly losing ground, for it cannot do either side—the classical or the modern—well.

There are accordingly at the present time three schools offering nine-year courses, the *Gymnasium*, the *Realgymnasium*, and the *Oberrealschule*. Corresponding to these are three schools with courses only six years in length, the *Progymnasium*, the *Realprogymnasium*, and the *Realschule*. Like the elementary schools, the secondary are subject to the independent control of each state with the sole exception that uniformity of standard is secured throughout the Empire by the Imperial School Commission

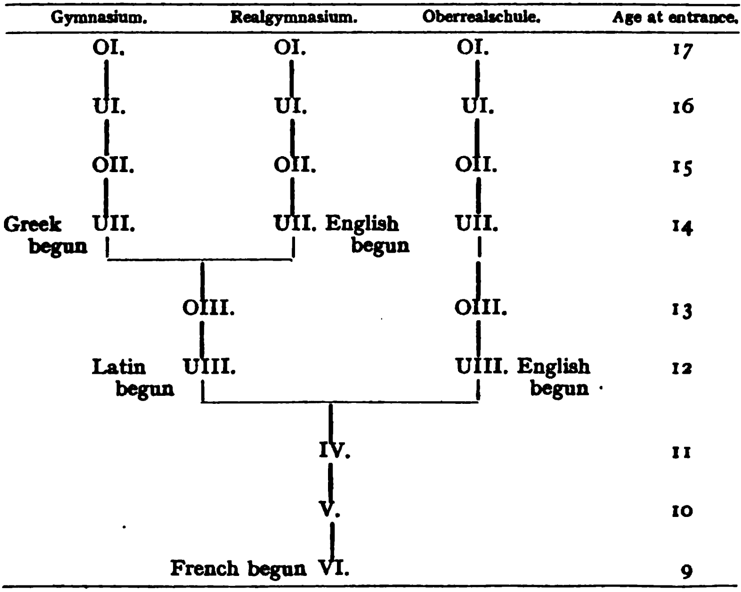
(*Reichsschulkommission*). This body consists of six members representing different parts of the German Empire and recommends to the imperial chancellor the schools that are qualified to grant the privilege of one year military service to their students. In Prussia secondary education is under the direction of the provincial school boards (*Provinzialschulkollegium*), whose constitution and functions have already been described. These boards serve as the intermediaries between the Ministry of Public Worship and Education. For religious purposes the secondary schools, according to the respective denominations, are under the supervision of the General Superintendent of the Evangelical Church or the Catholic bishops. The local educational authorities, even though they build, equip, and maintain a school, have only limited powers of supervision in external matters and no influence whatever in internal matters once they have decided on the type of school to be established. Secondary schools are thus perhaps more strictly the concern of the central educational authority than the elementary. Hence, although the schools are distinguished according to their origin as schools of royal or private or municipal patronage, their internal organisation, the curricula, and the qualifications of the teachers are the same. The uniformity of control and supervision secures uniformity of standards, but the inauguration of reforms is dependent not on the initiative and vigour of the individual school director, but on the slowly moving machinery of the central administrative office and the ability of the provincial inspectors to gain a hearing.

Secondary education forms a system entirely distinct from the elementary schools. The choice of a secondary school must be made at the age of nine, and the majority of pupils receive their preparatory education in the *Vorschulen* or preparatory classes attached to the secondary schools and receiving pupils at the age of six; others are prepared privately or attend the elementary schools up to the age of nine. No provision exists to encourage the passage of pupils from the lower to the higher schools. This is illustrated by the fact that only about one pupil in ten thousand passes to a secondary school on completing the elementary school. The exclusiveness of the secondary schools may be judged from a comparison of the number of boys (235,789) in attendance at these schools in 1913 and the enrolment (3,333,074) in the same year in the elementary schools. The statistics are confined to boys because the schools discussed in the present section are for boys only; a separate system, to be considered later, exists for girls.

This difficulty of transfer from the lower to the upper schools and the organisation of the secondary schools into types differentiated on the basis of curriculum and requiring early specialisation imposes on parents the necessity of making the choice of schools for boys at the early age of nine. The opportunities for changing from the classical to a modern-language and science school become increasingly difficult as a boy grows older. The danger of condemning a pupil to a scholastic career for which he has no taste or inclination, under a system in which success or failure in school may make or mar a life, has been recognised. One solution of the difficulty has been found in the organisation of *Reform* schools, which are increasing in popularity. The reform plan had its origin under Dr. Reinhardt at Frankfort. It aims to postpone the necessity of a choice as late as possible, and has the additional advantage that it makes possible the organisation of several types of schools under the same roof. Briefly the reform provides a common foundation for the three types of schools—the classical, semi-classical, and the modern-language. Generally, where the reform has been adopted two types, the *Gymnasium* and the *Realgymnasium*, have been combined and based on one common foundation. The first three years of the course in such schools are the same as the first three years of the *Realschule*, that is, only one foreign language, French, is included. Latin is accordingly postponed until the age of twelve, and a further bifurcation takes place two years later, when Greek is begun in the *Gymnasium* and English in the *Realgymnasium*. If the *Oberrealschule* is included in the scheme, the second modern language, English, is begun at the age of twelve. Another plan, which seeks to combine with one common foundation the *Realschule* and the *Realgymnasium*, was introduced at Altona, but has not met with as much success as the Frankfort plan. The reform has many advantages; it enables the smaller communities to establish one cosmopolitan secondary school with a variety of courses at small expense; it defers specialisation by one or two years; it relieves the young boy from the dangers of a heavy programme by postponing the introduction of new languages until he has a sufficient command of the old; it is an interesting experiment in flexibility, hitherto unknown in the Prussian system of education, since it seeks to accomplish in fewer years the same programme that is prescribed for the ordinary organisation; and, finally, it does not penalise so heavily the pupil who has been forced by circumstances to remain in the elementary school beyond the normal age for entrance into the secondary school.



Organisation of the ordinary secondary schools; the critical points fall at the ages of 9 and 11.



Organisation under the Frankfort plan; the critical points fall at the ages of 12 and 14.

Another suggested reform is more radical and would involve changes that would affect the whole social fabric of Germany. This reform is associated with the movement for the *Einheitsschule*, which would abolish the present social distinctions between the elementary and secondary schools and replace them with a common foundation for children of all classes in society. The common school would receive pupils up to the age of twelve when a great variety of differentiated types and opportunities would be opened up, including not only secondary but also vocational schools. So much attention has been given to this subject in the German educational periodicals since the early days of the war that a reform in this direction may well be looked for.

Whatever future reforms may bring, under the existing system a boy enters on his secondary-school career at the age of nine with an elementary preparation of three years in a *Vorschule* or an elementary school. Tuition fees are charged in all the schools and vary from 110 M. ($27.50) in the *Realschule* to 130 M. ($32.50) in the first six years of other schools and 150 M. ($37.50) in the last three years of a nine-year course. These fees are not as moderate as they may appear, when it is remembered that the salary of a well-paid teacher in a secondary school is about $1800 a year. Scholarships exist but provide for less than ten per cent. of the pupils in the schools. There is accordingly little or no encouragement for poor boys of ability.

Of the six types of schools the most popular continues to be the classical *Gymnasium*. Not only does tradition play a considerable part in determining the choice of school, but the practice of the smaller towns that can only maintain one secondary school is to establish a *Gymnasium*. The following statistics indicate the relative position of the schools in 1914:

	Gymnasium.	Real gymnasium.	Oberrealschule.	Progymnasium.	Realprogymnasium.	Realschule.
Schools . . .	346	187	111	25	45	180
Teachers:						
Full time . .	6,225	2,880	2,171	185	285	1,341
Part time . .	477	207	164	27	49	155
Pupils . . .	101,745	55,094	44,591	2,961	4,733	31,926

The total cost of maintenance of these schools in 1914 was $18,720,302, or a per capita expenditure of $77.66. Towards the total cost the state contributed $3,979,539 and local bodies

$6,559,967, while $7,311,435 was derived from fees. The remainder was made up by income from endowments.

A secondary school is defined as a school that provides instruction in at least two foreign languages, geography, history, German language and literature, mathematics, and natural science. The different types are distinguished from each other not merely by the duration of their courses, six or nine years, but by the emphasis placed on languages, whether ancient or modern, and on mathematics and natural science.

A study of the programmes of the three nine-year courses indicates the presence of a number of constants—German language and literature, history and geography, mathematics and natural science. The differentiating characteristics are the foreign languages. For the English and the American student of the German secondary-school curricula the striking feature is the attention given to the constants. The basis of differentiation may be linguistic, but it is not possible for a pupil to pass through any of the secondary schools without a moderate acquaintance with natural science, geography, and history, a situation that is so common in the English schools. Nor is the study of the vernacular language and literature left to be picked up incidentally. It is true that German and history have their own particular functions to perform in "nationalising" the future citizen, but this at least is a better practice than trusting to the dilettante interest of the pupil outside the school, or than affording a better training in the histories of Greece and Rome than in the history of one's own country. It will be noticed that approximately the same amount of time is given in the three school types to religion, German, and history. The exigencies of the programmes compel a reduction of the time allotted to the sciences in the *Gymnasium*. The identity of time-allotment to religion, German, and history is evidence of the importance attached to these subjects for giving a common background to the future leaders of the country. In religion the denominational affiliations of the pupils are respected, and the subject is taught under the supervision of the ecclesiastical authorities of the different denominations. In the teaching of German or other literature the emphasis is placed more on the cultural contributions of the leaders in that literature rather than on literary appreciation as such, but even here the study of Shakespeare plays an important part. The teaching of national history has always had peculiar significance in the German schools. Its function in producing the loyal citizen can be illustrated in no better manner than by reference to the change that has been introduced in the history syllabus during the war. The new regulations were issued in September of 1915 and came into force in April of 1916. Briefly the new requirements aim to concentrate the study

PROGRAMME OF STUDIES IN

	Gymnasium.												
	VI.	V.	IV.	U III.	O III.	UII.	OII.	UI.	OI.	Total.	VI.	V.	IV.
Religion	3	2	2	2	2	2	2	2	2	19	3	2	2
German	4	3	3	2	2	3	3	3	3	26	4	3	3
Latin	8	8	8	8	8	7	7	7	7	68	8	8	7
Greek	—	—	—	6	6	6	6	6	6	36	—	—	—
French	—	—	4	2	2	3	3	3	3	20	—	—	5
English	—	—	—	—	—	—	2	2	2	6 [1]	—	—	—
History	—	—	2	2	2	2	3	3	3	17	—	—	2
Geography	2	2	2	1	1	1	—	—	—	9	2	2	2
Arithmetic and mathematics	4	4	4	3	3	4	4	4	4	34	4	4	4
Natural science	2	2	2	2	2	2	2	2	2	18	2	2	2
Writing	2	2	—	—	—	—	—	—	—	4	2	2	—
Drawing	—	2	2	2	2	—	—	—	—	8	—	2	2
Singing [2]	2	2	2	2	2	2	2	2	2	18	2	2	2
Physical training	3	3	3	3	3	3	3	3	3	27	3	3	3
Geometrical drawing	—	—	—	—	—	2	2	2	2	8 [1]	—	—	—
Hebrew	—	—	—	—	—	—	2	2	2	6 [1]	—	—	—
Total [3]	30	30	34	35	35	35	35	35	35	304	30	30	34

[1] Optional. [2] From IV. onward only for pupils with vocal ability.

of history on the modern period, dealing especially with the development and achievements of the German Empire and consequently of the present dynasty during the last half-century. Religion, German, and history share among them the task of producing the God-fearing and loyal subject.

Whatever the purpose of the common foundations of the three schools may be, the traditional conception of a liberal education in terms of languages continues to survive and to be the characteristic mark of secondary education. In the *Gymnasium* 124 hours out of 304 are devoted to Latin, Greek, and French; in the *Realgymnasium* 96 hours out of 307 are given to Latin, French, and English; while French and English in the *Oberrealschule* receive 72 hours out of 307. The amount of time devoted to languages is determined by the future professional

GERMAN SECONDARY SCHOOLS

Realgymnasium.							Oberrealschule.									
U III.	O III.	UII.	OII.	UI.	OI.	Total.	VI.	V.	IV.	U III.	O III.	UII.	OII.	UI.	OI.	Total.
2	2	2	2	2	2	19	3	2	2	2	2	2	2	2	2	19
3	3	3	3	3	3	28	5	4	4	3	3	3	4	4	4	34
5	5	4	4	4	4	49	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4	4	4	4	4	4	29	6	6	6	6	6	5	4	4	4	47
3	3	3	3	3	3	18	—	—	—	5	4	4	4	4	4	25
2	2	2	3	3	3	17	—	—	3	2	2	2	3	3	3	18
2	2	1	—	—	—	11	2	2	2	2	2	1	1	1	1	14
5	5	5	5	5	5	42	5	5	6	6	5	5	5	5	5	47
2	2	4	5	5	5	29	2	2	2	2	4	6	6	6	6	36
—	—	—	—	—	—	4	2	2	2	—	—	—	—	—	—	6
2	2	2	2	2	2	16	—	2	2	2	2	2	2	2	2	16
2	2	2	2	2	2	18	2	2	2	2	2	2	2	2	2	18
3	3	3	3	3	3	27	3	3	3	3	3	3	3	3	3	27
—	—	2	2	2	2	8[1]	—	—	—	—	—	2	2	2	2	8[1]
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
35	35	35	36	36	36	307	30	30	34	35	35	35	36	36	36	307

[1] Excluding optional subjects.

needs of the pupils. The day has passed when the universities closed their doors to those who had no command of Latin and Greek, but it is still felt that no student can progress very far in the literary-historical subjects without a thorough knowledge of Latin. The graduate of the *Oberrealschule* is still expected to acquire a knowledge of Latin before being admitted to the study of medicine. In general, however, it may be said that while the graduates of the *Gymnasium* and the *Realgymnasium* look to the careers of law, medicine, theology, and teaching, the graduate of the *Oberrealschule* prepares for scientific research, commercial pursuits, and teaching.

It is difficult in a brief compass to bring out the qualities of language teaching in the German schools. The aim in the teaching of the classics, as compared, for example, with the aim in an English school, is linguistic-philological rather than cultural in the broad sense. The aim of the neo-humanists seems long to have been forgotten, and grammatical niceties have a more important place than the cultivation of literary taste and expression. The standards of a Willamowitz-Möllendorf are the standards of the few. Less time is given to unseen translations and prose composition than in the English schools, and Latin verse is almost entirely unknown. The influence of the universities with their emphasis on philological research is more potent in the teaching of the classics than the contributions of those who are interested in the methods of teaching modern languages.

The greatest advance in language teaching has been made in the methods of instruction in modern foreign languages. Here the direct method, with such modifications as experience has proved to be necessary, is employed universally. The subjects are invariably taught by teachers who have a living command and not a book knowledge of the languages. The results are shown not only in the reading ability, but more astonishingly in the oral command by the pupils of one or two languages. The graduate of the *Oberrealschule* is usually a fluent speaker of French and English, while the graduates of the two other schools have no mean command of at least one of these.

The characteristic mark of a secondary school is its power to grant the privilege of one year volunteer service in the army (*Einjährig-freiwilliger Dienst*). The privilege is gained by those who complete satisfactorily the course of six years in a secondary school approved by the Imperial School Commission. The approval of this commission thus serves to standardise schools throughout the Empire. The privilege has far greater significance than merely releasing its possessors from one year of military service and bestowing upon them certain advantages, such as the choice of a regiment and exemption from residence in barracks. The privilege confers a definite social standing, and is not infrequently required as a qualification for admission to certain branches of the civil service, to clerkships in banks, and junior positions in commercial houses. Educationally the privilege acts as a spur and stimulus to many pupils who under any other system would probably fail. The attainment of the standard for the one year military service marks the close of the educational career of a large percentage of the pupils. From the point of view of a militaristic state the privilege is of importance since it affords a supply of educated men from whom are selected the reserve officers of the army.

Besides this privilege, which is enjoyed by pupils in all the six types of schools, another privilege is reserved for those who complete the work of the nine-year courses and pass the leaving examination appropriate to the school attended, whether *Gymnasium*, *Realgymnasium*, or *Oberrealschule*. This examination (*Abiturientenexamen* or *Maturitätsprüfung*) is conducted by the school faculty under the chairmanship of a provincial school inspector. The questions for the written part of examination are drawn up by the teachers of the final year (*Prima*) and are approved by the inspector. The written examination is followed by an oral examination, in which the teacher of any subject acts as the chief examiner in that subject. Success in this examination carries with it the privilege of admission to the universities. The *Reifezeugnis* (graduation certificate) of the three nine-year schools does not carry with it the same rights. The student coming from a *Gymnasium* may enter any of the faculties of the universities; the graduate of the *Realgymnasium* is still excluded from the faculty of theology, while the graduate of the *Oberrealschule* is excluded from the faculties of both theology and medicine, although admission may be obtained to any faculty on attaining a satisfactory standard in the necessary classical language. The percentage who pass the examination is high, partly because the examination is conducted by the teachers who are familiar both with the pupils and the standards that they may be expected to attain, partly because pupils are only admitted to the examination at the discretion of the director and the staff of the school concerned. In 1913-14, of those who were examined in the

Gymnasien 95.4 per cent. passed, 95.4 per cent. in the *Realgymnasien*, and 96.5 per cent. in the *Oberrealschulen*.

It is claimed for the institution of privileges that they serve as a standardising element throughout the Empire and furnish large numbers of men for public service who are endowed with some definite amount of information and intellectual training. On the other hand, the criticism may be made against the system that it offers inducements to the pupils to work that are not inherent in the studies themselves, that the interest or stimulus is external to the curriculum, and that it emphasises knowledge or information rather than the development of judgment, taste, insight, or character. In other words, culture or liberal education, in spite of the recent concessions to the real and modern subjects, is defined in static rather than dynamic terms, from the bookish point of view rather than on the basis of the needs of an active and progressive modern society. While the system is an important element in securing an efficient and smooth-running machine, the strain imposed on the individual pupil is frequently too great and accounts in part for the moral and intellectual breakdowns in the German universities.

It is difficult, without entering upon a discussion of the aims and objects of secondary education, to estimate the German secondary schools. Measured from the point of view of efficiency, they are undoubtedly successful in achieving the task set before them, the preparation of the few for leadership in the government services and the professions. Viewed from this standpoint the purpose of the German secondary school is to impart certain ideas or information; the measure of success is the amount of knowledge attained by the students, not the kind of individuals they are or may become. The standards are almost entirely intellectual, and combined with these is a strong faith in the value of training the youth of the country in habits. The methods of instruction do not differ radically from those employed in the elementary schools; the learning process is under the control of the teachers. [The mind is filled with information, but independence of observation or judgment is not developed or even encouraged.] The very causes of the success of the German system, efficient organisation, standardisation, careful preparation and selection of teachers, tend to develop qualities that the English or American secondary schools desire to avoid. Not receptivity and passive acceptance of information but self-activity and self-expression, not conformity and conventionality but originality and independence are the aims of the English-speaking institutions. The fruits of a good secondary education are seen to consist not merely in learning but in judgment, not only in information but in ability to apply and see the implications of knowledge.

The narrowness of the German aims is indicated by the desire of many prominent German educators to introduce those characteristics that make the English schools so distinctive—the organisations for the development of corporate life. The formation of character, largely an individual object, does not form part of the aim of German secondary education. Physical training (*Turnen*) is included in the school programmes, but formal physical training does not afford those opportunities for self-government or training in responsibility that are found in athletics and the numerous other organisations that play such an important part in the training of the English secondary-school boys and girls. The results of the two systems can best be estimated by a comparison of the type of mind that is developed by contact mainly with books with the type of mind that is trained by contact of individuals with other individuals. Probably neither the English system in underestimating the value of knowledge, nor the German system in emphasising the value of information, approaches the right ideal; it is at least true that while the former develops open-mindedness, imagination, and judgment in affairs, the latter cultivates literalness, dogmatism, and pedantry.

VII. TRAINING AND STATUS OF SECONDARY TEACHERS

As in the case of the elementary schools, the strength of the German secondary schools lies in the fact mainly that the teachers are carefully trained to perform a definite task in a definite way. In return the teachers are rewarded not only financially but with a status that carries with it dignity and honour. Teaching in secondary schools has been a profession in Prussia since the days when Von Humboldt introduced an examination for teachers distinct from that for candidates for the ministry. Not only was an examination then instituted, but in 1826 a year of probation (*Probejahr*) was required in which the candidate for appointment picked up the methods employed in schools.

Under the present system a candidate for appointment in a secondary school must have attended a complete nine-year course and have spent three years at a German university. As a general rule the length of attendance is more frequently five than three years. But a university degree is not required as a qualification for appointment. Indeed, many teachers do not proceed to the degree. A considerable part of the time at the university is devoted to preparation for the more important qualification, the state examination (*Staatsexamen*). This examination is conducted not by the universities, but by special examining boards (*Wissenschaftliche Prüfungskommissionen*), of which there are ten for the whole of Prussia. The boards include representatives of the universities, secondary schools, and the central authority, to the number of twenty or thirty. The requirements cover a knowledge of pedagogy and philosophy (psychology, logic, and ethics), the German language and literature, religion, and the special subjects which the candidates expect to teach. The special subjects are divided into two main groups, the linguistic-historical and the mathematical-scientific. Each candidate is required to offer four subjects, two majors (*Hauptfächer*) and two minors (*Nebenfächer*), and the subjects must be in closely allied fields. The examination is, as usual in Germany, both written and oral. The latter part, as well as the close scrutiny of the applications for admission to the examination, serves as a check on the admission of undesirable candidates, undesirable not on professional or academic, but mainly on religious and political grounds. The candidates who succeed in passing the state examination receive certificates not only entitling them to teach, but defining on the basis of the examination the classes that the candidate is qualified to teach.

But the certificate only grants the *facultas docendi*. The candidate has still two more years of professional training before him to become qualified for appointment. Since 1890 the candidates are assigned in small groups of eight or ten to schools specially selected for the purpose to undergo a year's training in the theory and practice of secondary education. This work in the *Seminar* is under the guidance of the director and includes the study of principles of education and instruction, the administration of secondary schools, discussion of pedagogical problems, observation and critical consideration of model and other lessons, and a few hours of practice at the close of the year. The candidates are required to write an essay on some practical topic arising out of their experience during the *Seminarjahr*. This is considered in connection with a report of the director of the *Seminar*, and, if successful, the candidates are then reassigned in twos and threes for their practical training. During the *Probejahr* experience is to be acquired not only in actual class-teaching under guidance, but also in the general routine of a secondary school—supervision of pupils, faculty meetings, and so on. If at the close of the year a candidate is reported as satisfactory, his name is placed on an eligible list in the province in which he desires to begin his career. His appointment thereafter will depend somewhat on the number of vacancies for teachers of the subjects offered by him, somewhat on his own desire to enter the slightly more dignified service of a state school, and somewhat on the whim of city education authorities, who may select any one of the first six names on the eligible list. The lapse of time between the close of the training period and appointment varies anywhere up to five years or more, which may be filled in by service as assistant teacher (*Hilfslehrer*) in a boys' school, or as teacher in a girls' school, or by private tuition, or in any other way.

But the appointment once obtained is worth, from the German point of view, the twenty years of preparation—nine years in the secondary school, about five years at the university, two years of professional training, and a few years on the eligible list. The German teacher enjoys security of tenure, and may only be removed from office for some very grave cause, usually unconnected with his professional service. He is a member of the civil service and has a definitely recognised position in the social scale. He enjoys, in addition to a graduated salary, the use of a house or compensation for rent and the prospect of a pension. Brought up and trained in the spirit of the secondary school, with the brief exception of the few years at the university, the teacher returns to the school fully equipped to hand on the traditions to the next generation. Strong as is the *esprit de corps* and professional feeling among the elementary-school teachers, they are even surpassed among the secondary-school teachers who, beside the solidarity imbued in them by their training, are fully conscious of the dignity of their social position. His oath of office makes the Prussian teacher a loyal instrument of the government; his training, intellectual and professional, gives him the equipment that enables him to perform efficiently the duties prescribed for him by the state.

The salaries vary somewhat according to the type of school and its location, but in general the following scales indicate the progression for teachers and directors:

SALARIES OF TEACHERS

Initial.	After 2 years.	After 6 years.	After 9 years.	After 12 years.	After 15 years.	After 21 years.
2,700 M.	3,400 M.	4,100 M.	4,800 M.	5,400 M.	6,000 M.	7,200 M.
$675	$850	$1,025	$1,200	$1,350	$1,500	$1,800

To these sums must be added the value of a house or its equivalent in rent, varying from 560 M. ($140) to 1300 M. ($325) a year.

SALARIES OF DIRECTORS

Initial.	After 3 years.	After 6 years.
6,600 M.	7,200 M.	7,800 M.
$1,650	$1,800	$1,950

The rent indemnity for directors ranges from 900 M. ($225) to 1800 M. ($450).

The pension arrangements are the same as those for elementary-school teachers. After ten years of service a teacher who is incapacitated may retire on a pension of fifteen-sixtieths of his salary. This rises by one-sixtieth for each year of service up to the maximum, after forty years of service, of forty-five-sixtieths of the final salary. Widows are entitled to one-third of the pension to which a teacher is entitled, while one-fifteenth of the pension is granted for each child under eighteen years of age.

The success of the secondary-school system is intimately bound up with the method of selection of candidates and their training. The state assumes the control of the system and is not content to rely merely on the endorsement of the universities. Conscious of the definite functions of the different types of secondary schools, the state exercises its authority in selecting the appropriate agents to carry out these purposes. Its first care is to admit to the candidacy for the profession men who have already imbibed the atmosphere of the schools and who are not likely to run counter to the accepted political doctrines of the authorities. The next qualification of importance is a thorough mastery of subject-matter, not scattered over a wide area but closely integrated. A teacher is appointed to teach only the subjects in which he has given adequate proof of his attainments. The training in the *Seminarjahr* and the *Probejahr* is intended not so much to impart a grasp of pedagogical principles as to drill the candidates in the accepted routine of the schools. From the point of view of teaching ability the elementary-school teacher is superior to his colleague in the higher schools. The training period is not planned to lay foundations for future growth, for no teacher is expected to be a reformer or innovator, but to familiarise the candidate through a system of supervised apprenticeship with the educational situation as it is and as he is expected to carry it on. The success of the secondary-school system is due to the definiteness and precision of organisation and the appropriate training given to those who are to conduct it. The defects, as in the case of the elementary branch, are due to inbreeding and the narrow professionalising of the teachers. The system has incorporated the spirit of order and discipline which characterises the military organisation. Mechanical efficiency is secured, but at the sacrifice of individuality and growth.

VIII. SECONDARY EDUCATION FOR GIRLS

Few reforms in Prussian education have been as significant as the reorganisation of the system of secondary education for girls. Here for the first time a genuine attempt has been made to depart from the traditions of a century and to develop a system of education intended not only to meet the educational needs of girls in modern times, but also to satisfy the modern conceptions of a liberal education.

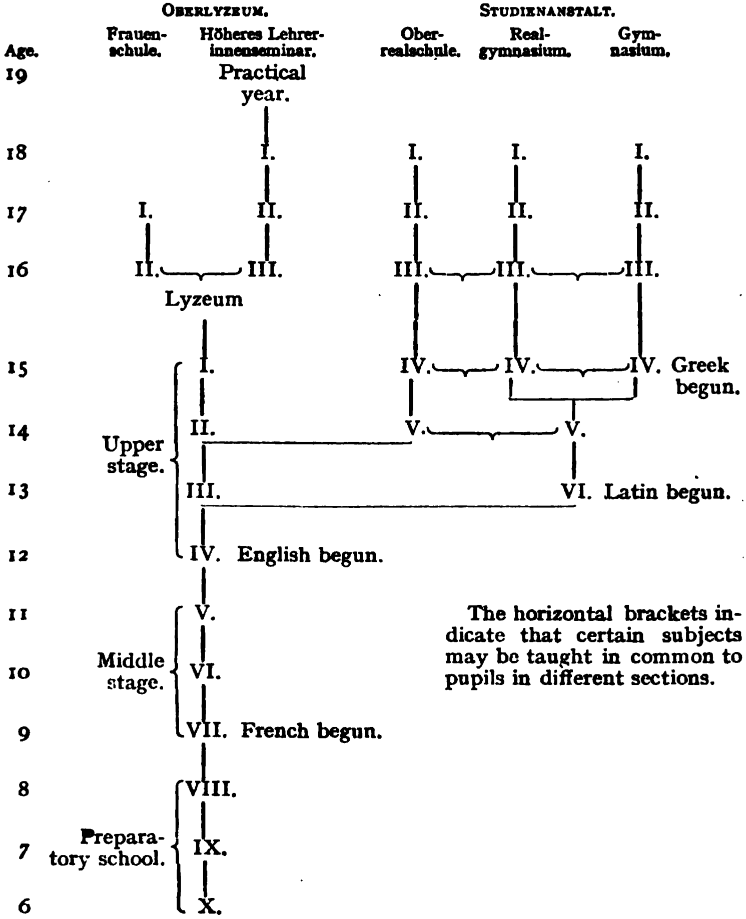
The development of a system of secondary education for girls in Prussia has been slow and has been confined practically to the nineteenth century. Its early organisation was directed to two objects, the preparation of girls in the so-called social accomplishments and the training of young women for teaching, then the only occupation open to them. In 1811 a royal school was established in Berlin to train girls for teaching positions. A similar school followed in 1832. Regulations were issued in 1845 and in 1853 for the examination of women teachers, thus giving legal government recognition to the profession. Side by side with these professional institutions came the establishment of municipal schools. In 1840 there were 56 publicly maintained schools for girls; 103 in 1860. The increasing number of wealthy middle-class families required the establishment of such schools. The curriculum included religion, German, French, handwork, and a little science. There were, however, no government regulations or general plans for these schools.

After the establishment of the German Empire a number of teachers met at Weimar and demanded the maintenance of girls' schools by the state or municipal authorities, with a ten-year course and a general school plan, including two modern languages. At another conference in Berlin in 1873 it was the opinion of the meeting that the education of girls should be ethical and aesthetic rather than intellectual. In the following year new regulations were issued for the examination of women teachers, but the requirements and standards were not as high as for men. An official course of nine years was prescribed in 1886. The further development of girls' schools was promoted by the agitation for the emancipation of women, which demanded the education of girls as individuals rather than as the future companions of men. Until recently a large percentage of the teachers in girls' schools were men. This was remedied to some extent in 1894 and 1899, and a new examination was established for such teachers. As a result of the requirements for these examinations special institutions and courses were organised at the universities, which led to an agitation for the admission of women to the universities and to degrees. Baden and Bavaria admitted women on passing the *Abiturientenexamen*.

In 1899 a division for girls' schools was established in the Prussian ministry, and in 1902 the Minister of Public Worship and Education laid down the principle that the education of girls must be in the direction of the general problems now claiming the attention of educated women. The principles which the government intended to follow were declared to be that "the ideal position of the German woman in the family shall be preserved as far as possible." Those interested in the education of girls, however, protested and demanded the preparation of girls for the universities, the education of women beyond the girls' schools, co-education, training for the higher teaching profession, and the better organisation of girls' schools as part of the general scheme of secondary education.

The system was definitely organised in 1908 with a ten-year course beginning at the age of six, the first three years being preparatory. This course, taking the girls up to the age of sixteen, is the higher girls' school proper, now known as the *Lyzeum*. Beyond this is the *Oberlyzeum*, consisting of two courses—the *Frauenschule*, giving a two-year course of a general character, including household arts, kindergarten teaching, civics and economics, needlework, languages, music, and art; and the other course of four years in the training college for women teachers for elementary schools and the lower classes in girls' secondary schools (*Höheres Lehrerinnenseminar*). At the age of thirteen girls who desire a secondary course equivalent to that given to boys may transfer to another division, known as the *Studienanstalt*, which offers the three courses leading up to the universities, the classical, semi-classical, and modern-scientific. In other words, the common foundation for all girls continues up to the age of thirteen, and the necessity of making a definite choice of a specialised course is postponed up to that age. Since 1913 the teachers in the *Studienanstalt* must have studied in a university. The accompanying diagram gives a clear presentation of the organisation of a girls' secondary school to-day.

ORGANISATION OF PRUSSIAN HIGHER GIRLS' SCHOOLS
(Based on Monroe's *Cyclopedia of Education*, vol. iii. p. 86)



The horizontal brackets indicate that certain subjects may be taught in common to pupils in different sections.

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It will at once be recognised that the girls' secondary school has several advantages over the boys' schools. In the first place the schools are cosmopolitan, that is, they provide a multiplicity of courses in the same school and offer a wider choice than is possible even in the reform schools. Hence the choice and the specialisation can be and is postponed up to the age of thirteen. The general course continues for those who do not intend to proceed to the universities up to sixteen, when an opportunity is offered, with a wide range of electives, to those who desire some preparation to meet the general problems of the home and modern society. The institutions also provide courses for those who intend to enter the teaching profession. Reference was made in an earlier section to the liberal training given to women teachers in elementary schools as contrasted with that provided for men. Specialisation does not begin until after the completion of ten years of secondary studies, including modern languages and sciences, studied in classes with girls who are destined for other careers. The four-year course for teachers is begun and continued in the same building and under teachers who have generally had university training and are free from the narrowing influences of the Prussian elementary schools. Any movement in the direction of liberalising the elementary schools will come very largely from the introduction of women with the type of training given in these institutions until the present system of training men teachers is changed and the boys who look to the teaching profession for their career are given equal educational advantages with the girls.

The new system of schools for girls is also interesting from another point of view. In the classical and semi-classical divisions of the *Studienanstalt* Latin is begun at the age of thirteen and continued for six years; in the classical division Greek is begun at the age of fifteen and continued for four years. Since the girls who enter the *Studienanstalt* intend to prepare for the *Abiturientenexamen* they will be expected to reach the same standard as the boys in Latin and Greek in two-thirds of the time. They will, it is true, have had the advantage of some training in modern foreign languages before turning to the classical, but the experiment should yield interesting results. Whatever the conclusions, the whole reorganisation of secondary education for girls is a striking commentary on the inability of the Prussian government to break away from tradition in the education of its boys for leadership, while it shows itself ready to inaugurate a far-reaching reform in the education of those who are politically negligible.

IX. VOCATIONAL SCHOOLS

In the field of general education the lesson of Germany is the close adaptation of school organisation to the political and social ideals. No less intimate is the adjustment of education to industrial and commercial needs. For this branch of educational activity Germany has incurred tremendous expenditures and has reaped a rich reward in the remarkable expansion of her trade and commerce. Other factors have also contributed to the success, but the importance of the educational adaptation cannot be exaggerated for no other reason than the fact that it has been so consciously employed. Germany has succeeded in less than forty years in building up an industrial and commercial hierarchy in which each grade is as distinctly defined as are the ranks and grades in the army. For the rank and file of her workers she has developed a system of continuation schools, for the subordinate officials the lower trade and commercial schools, for managers the middle technical and commercial schools, and for her leaders technical and commercial high schools of university grade. In every class science has been employed as the handmaid of industry. The German organisation is possible not merely because of the faith in education, but also because systematising and classification are part of the general order of things. Training and specialisation secure not only skill but contentment with the existing regime, especially if these are supplemented by government measures for the welfare of the workers and protection for the employer. Drilled in habits of political obedience in the schools and in habits of precision, discipline, and respect in the army, the great body of workers receives its final training in industrial skill in the system of continuation and trade schools.

The chief stimulus in the promotion of the type of education under discussion has, however, been the government in each state. In 1884 Bismarck placed the control of industrial and commercial education in the hands of the Ministry of Commerce and Industry. This practice is not uniform throughout the empire. In Württemberg such education is under the supervision of both the Ministry of the Interior and the Ministry of Public Worship and Education, assisted by a Central Commission for Commerce and Industry, which is presided over by a representative of the Ministry of the Interior and is responsible to the Ministry of Public Worship and Education. The commission consists of civil officials, school inspectors, and advisers from boards of trade and chambers of commerce. In Baden the Ministry of Justice, Public Worship, and Education, acting through a Council for Industrial Education, has charge of training for industries and commerce, but the presiding officer of the council is a representative of the Ministry of the Interior. The controlling authority in Bavaria is the Ministry of Public Worship and Education.

Since 1909 the Prussian Ministry of Commerce and Industry has been assisted by a National Industrial Bureau, which consists of ordinary members, who are experts in different branches of industrial education, and specialists appointed from time to time. The function of the bureau is to advise on matters of school buildings, equipment and teachers, to promote industrial education, to collect and publish information, and to superintend the operation of the regulations. The experts of the bureau serve as an advisory board and may associate special members with themselves whenever special problems present themselves for solution.

The reasons alleged in favour of separating the control of vocational education from the general system are many, but do not carry conviction. It is argued that the Ministry of Commerce and Industry and its officers are sensitive to new movements in their own special fields. The schools can therefore be adjusted to the real needs of the time, while their removal from the control of the Ministry of Education means that they can be rendered more practical and less academic. It is also urged that the differentiation of control implies the recognition of a definite problem by a body specifically charged with its supervision. On the other hand, differentiated control leads to the separation of vocational from general educational interests and a break between general education and later life, as though the one emphasises reproduction of information and the other the application of principles. Some confusion is probably due to a failure to recognise that, while industry and commerce provide the subject-matter, its organisation for purposes of instruction is an affair of educational administration. The student who attends the trade school is already engaged in an occupation and has ample opportunities of becoming acquainted with the demands of industry and commerce; the function of the school is to impart the educational background. At present in Prussia there is co-operation between the two ministries concerned as regards the use of school buildings and the employment of teachers, but it is not clear that the gain from the points of view of administration or of education is sufficient to warrant the establishment of two authorities. Dr. Kerschensteiner has afforded adequate proof that the control of industrial education by a single authority does not mean any loss educationally or administratively. It secures, in fact, what is more needed, continuity and co-ordination of all parts of the educational machine. The problem is not one of dual control, but the intelligent employment by the education authorities of the sympathetic co-operation of all bodies interested in the promotion of industry and commerce, and with this a clearer conception of the problems involved in the selection and preparation of teachers for the schools in question.

X. CONTINUATION SCHOOLS

The education of the majority of boys and girls in Germany does not end with the completion of the elementary schools at the age of fourteen. By the Imperial Trade Ordinance (*Reichsgewerbeordnung*) of 1891, supplemented in 1911 and extended in its application to girls, employers were compelled to allow employees under the age of eighteen to attend continuation and industrial schools wherever they were established. Compulsory attendance might be required by state or local authorities, by guilds, or by chambers of trade and commerce, all of which bodies were empowered to establish schools for their particular needs. By the same regulations masters and employers were required to supervise the school attendance of their employees.

The continuation school (*Fortbildungsschule*) was at its origin in the eighteenth century a school intended to supplement the education of the elementary schools. They were conducted on Sundays and attendance was voluntary. The development of the continuation school, however, has followed the industrial development after the Franco-Prussian War. With the exception of the imperial ordinance there is no uniformity either in the requirement of attendance or organisation of courses throughout the country. There are, however, certain marked tendencies; compulsory attendance is being introduced more generally; the aim and purpose of the schools are being more clearly and definitely conceived; there is growing unanimity on the time of attendance and duration of the courses; and, finally, there is more general agreement on the type of teacher required for such schools.

Compulsory attendance between the ages of fourteen and eighteen has been introduced by state-wide legislation in twelve states; in the remaining states attendance becomes compulsory by local by-laws. The period of attendance varies from two years, as in Württemberg, to four years in Bavaria. The length of each school year is about forty weeks and attendance is required for from six to ten hours each week. There is some variation in the times of attendance. By tradition, attendance has been required on Sundays, a practice that has not met with general approval. With the extension of the school week evening attendance has been introduced, but has proved educationally unsound, since the pupils are too fatigued at the end of a long working day to derive any advantage from the work. Here again the tendency is everywhere to arrange the attendance during the regular working hours before eight o'clock in the evening. This arrangement raises the difficulty of finding suitable buildings for the conduct of the schools. Hitherto continuation classes have been carried on after the regular day schools have closed. The new tendency is leading to the need of new buildings. This need, however, is emphasised from another angle by the recognised unsuitability of the ordinary elementary school buildings for carrying out the new ideals and purposes of the continuation school. The rearrangement of the school hours has drawn attention also to the need of teachers. So long as the ordinary school buildings were used the teachers of the day schools could be employed; if the present tendency becomes the established practice this supply will no longer be available. The new continuation school pedagogy is drawing attention to the need of an entirely new type of teacher, different from the overworked elementary-school teacher who is trying to fit into a situation for which he is not really qualified. The change of hours has the additional advantage of enlisting the active interest of the employers who are now required to allow their young employees time off during the regular working day. That this is a genuine advantage is indicated by the fact that many employers are now paying the small tuition fees required of their employees.

The curriculum of the continuation schools varies in different parts of the country. The traditional continuation school merely continued the work of the elementary schools and repeated more intensively the reading, writing, arithmetic, and religion. At present the tendency is in the direction of variation of types. Wherever the numbers and the local interests warrant, the work of the continuation school is being centred round industrial, commercial, or domestic pursuits; where such an organisation is not possible, either because the numbers are too small or because the pupils do not have any common vocational interest, a general curriculum is offered. The general course includes, beside the fundamentals, composition and drawing, and civics for boys or domestic subjects for girls. Where the vocations form the centre of organisation the occupations of the pupils are made the central point of the studies. In some places workshops form part of the equipment, but where this is financially impossible the experience of the pupils in their daily employment is drawn upon for educational purposes. Thus arithmetic and mathematics, bookkeeping and geometry, are taught with reference to the special needs of the pupils, while the occupations are made the starting-point for the general cultural training of the pupils as citizens by pointing out the general position of the occupation concerned in promoting the welfare of the nation. In this way a training is afforded in economics, civics, hygiene, or domestic science. The continuation school is also being employed for purposes of extra-curricular training by means of the organisation of clubs, the establishment of libraries and gymnasiums, and by promoting the healthy development of the adolescent interests of the pupils. In a new sense the continuation schools have undertaken to extend the work of the elementary schools by adapting their courses to the maturer interests and needs of the adolescent as a worker and a citizen.

Since the best example of the modern continuation school has been developed in Munich, it is necessary to leave the Prussian system for the present. The system of continuation schools has been organised in Munich since 1900 under the inspiring guidance of Dr. Kerschensteiner. His chief task was to win the sympathy and interest of both employers and workers for a system of schools based on a new pedagogy. Under the Bavarian law attendance at continuation school was compulsory, a measure which Dr. Kerschensteiner justifies on the ground that compulsion serves as a protection against the employer, safeguards the influence of the home, controls the self-interest of the adolescents, and stimulates the desire of young boys and girls for self-improvement.

Dr. Kerschensteiner was able to secure the support and interest of employers by inviting them to visit the schools and by seeking their counsel in the organisation of the schools. He invited them and others who might be concerned to conferences for the consideration of courses of study and drawing up time-tables to suit the needs of each industry. The interest of the employers has been shown by the presentation of raw materials, tools, machinery, and models for use in schools, and by affording facilities for teachers and pupils to visit factories. The employers have three representatives on the board attached to each school, which includes in addition the school principal and a member of the municipal council. Beside the school boards there are also advisory committees of employers who are consulted from time to time on the plans of instruction and exercise a benevolent supervision over the schools.

The principle on which the new continuation school was based was the simple one of making the occupation of the pupil, because it is the chief matter of interest to the adolescent on leaving the elementary school for the larger world outside, the centre round which are grouped such general subjects as drawing, mathematics, literature, history, and civics. The aim of the schools is both utilitarian and cultural—on the one hand to develop insight, dexterity, and skill based on scientific knowledge, and on the other through efficiency to arouse a joy in work and a recognition of the place of the skilled workman as a citizen. The schools are organised into three main classes, general, industrial, and commercial. General schools are intended for the unskilled labourers or for those trades in which the number of employees of school age is too small to warrant a separate organisation. In the industrial class schools are organised in trades where there are twenty apprentices. At present schools or classes are organised for the following interests: building trades, printers and machinists, woodworkers, butchers, gardeners, and barbers. The commercial schools are organised in the following groups: food and provisions; banking, insurance, and bookselling; drapery and textiles; and porcelain, cutlery, and hardware.

Boys are required to attend appropriate courses from the age of fourteen to eighteen for eight or ten hours weekly. Usually the work is so arranged that each week's attendance falls on one whole day or two half-days, with or without reduction in wages for the time lost from work. The curriculum in all the courses includes religion, German composition and reading, arithmetic and bookkeeping, and civics. About one-fourth of the time is devoted to the special occupational interests of the pupils.

Workshops have been organised in connection with the schools, but it is generally admitted that it would be futile in the short period of attendance to attempt to impart technical skill. The special work is, therefore, of a general character, dealing with wares or machinery and with enough practical work to link up the school and the factory. The chief emphasis in Dr. Kerschensteiner's plan is on training in citizenship. The general subject of civics includes hygiene, personal and occupational, with gymnastics and lessons in first aid; economic and industrial history with the pupils' own occupations as the starting-point; and civics proper. The last subject covers not only local and national government, the rights and duties of citizens, but the national meaning of industry and commerce, Germany's economic position, and the position of the citizen as an instrument of social progress.

The following tables illustrate the organisation of the courses in three industries:

Cabinet-makers.	Hours.
Religion	1
Composition	1
Arithmetic and bookkeeping	1
Civics	1
Technical drawing	3
Practical work	2

Tailors.	Hours.
Religion	1
Composition	1
Arithmetic and bookkeeping	1
Civics	1
Wares and materials	1
Technical drawing	3
Practical work	2
Gymnastics	1

Barbers.	Hours.
Religion	1
Composition	1
Arithmetic and bookkeeping	1
Civics	1
Trade knowledge	1
Elementary surgery	1
Practical work	3

Assistants and apprentices in commercial occupations are grouped in four main divisions—foods and provisions; banking, insurance, and bookselling; drapery and textiles; and porcelain, cutlery, and hardware. The fundamental courses are the same for all the groups; differentiation is introduced in such subjects as commercial geography and commodities of commerce. The courses include religion, arithmetic, theory of exchange, bookkeeping and accounting, commercial correspondence, commercial geography, commodities of commerce, commercial law, penmanship, and civics. Opportunities are offered for the election, as additional subjects, of stenography, typewriting, and foreign languages.

Since 1912 the commercial continuation schools have been definitely organised in Prussia under the Ministry of Commerce and Industry. A *Kuratorium* or supervisory board is attached to each school and consists of representatives of the central and local government, the local chamber of commerce, and other interested bodies. The length of the course is three years of forty weeks each with a required attendance of six hours each week. The aim of the course is to supplement the general education of the elementary schools, to give special technical and theoretical preparation, and training in efficient citizenship. The curriculum includes arithmetic and bookkeeping, commercial geography, commercial science, and civics. The most important subject of the course, commercial science, covers business knowledge and business practice, that is, language and correspondence, business forms, elements of economics and law, banking, bills, and the fundamentals of trade. It will be noticed that, unlike the practice in England and the United States, stenography and typewriting do not form an integral part of these courses, although they are sometimes found. Except for the addition of foreign languages and a somewhat more intensive treatment of the subjects mentioned, the training in the secondary commercial schools is hardly superior to that given in the continuation schools.

XI. INDUSTRIAL EDUCATION

The purpose of the continuation school is to prolong the general education of those who are compelled to enter a vocation immediately on completing an ordinary elementary-school course. Although industrial and commercial studies have in some systems been introduced, their main significance is cultural rather than vocational. Specific technical training is given in trade schools that have been organised to meet the needs of the chief occupations in Germany. Although the system of apprenticeship has survived with greater vitality in Germany than in other countries, it began to be felt soon after 1870 that the system did not afford a safe basis for the mobilisation of the industrial resources of the nation. The training of the apprentices was too frequently left to the haphazard methods of the workshop and involved not merely waste of time and energy, but tended to develop narrowness and unintelligent methods among the future workmen. The solution could only be found in supplementing apprenticeship with a system of schools to afford a broader and more scientific training at least for those who were to become foremen and managers. While apprenticeship affords a training under the actual conditions demanded in a world of competition, the schools could be relied upon to impart a better technical training.

The revived interest in apprenticeship was easily transferred to the guilds. By a law of 1897 it was declared that the objects of the guilds are to promote *esprit de corps*, to establish amicable relations between employers and employees, to regulate apprenticeship, and to encourage moral and technical education. Membership in guilds could be made compulsory wherever the majority of persons interested in any branch of industry so determined. The guilds have been an important factor in establishing educational institutions for apprentices and journeymen. While the continuation schools in no instance take the place of apprenticeship, the industrial or trade schools may, at the discretion of employers, supplement or be substituted for it. The semi-official chambers of industry, which consist usually of representatives of guilds, have warmly supported the efforts of the guilds in promoting industrial education and have in turn been assisted by the chambers of commerce.

Special schools have been established for most of the important trades and industries. It is not generally regarded, however, as the function of the industrial schools (*Gewerbeschulen*, *Fachschulen*) to teach the whole of a trade or industry unless the conditions demand it. The schools are rarely a substitute for apprenticeship, as they are, for example, in France, since the expense to the state and the students in such cases would be prohibitive. But most schools require some preliminary practical experience for admission to any course.

The organisation for industrial and trade education provides for the training of skilled artisans and foremen, master workmen and managers of works, and, finally, the scientific leaders. The corresponding schools are the lower technical schools, trade schools or schools for master workmen, the middle technical schools, and the technical high schools of university grade. The entrance requirements to these institutions vary, but in general the lower technical schools require from their students the completion of the elementary schools and four years of practical experience in a workshop; the courses in the middle technical schools are built up on the basis of six years of a secondary school, or, in other words, the attainment of the qualifications required for the privilege of one year voluntary military service, and two years of practical experience; the entrance requirements to the technical high schools are the completion of the course of a nine-year secondary school, usually the *Oberrealschule*. The duration of the courses is from four months to two years in the lower technical schools, five semesters in the middle technical schools, and six semesters in the technical high schools.

The chief branches in which training is provided are the building trades, machine construction, art trades, textiles, and printing. So far as possible the needs of local industries are met. If the state or the municipality does not provide the appropriate educational facilities, the deficiency is frequently supplied by guilds, chambers of industry, or by the large employers of labour in their own apprenticeship schools. The character of the training offered varies from the lower schools in which the chief emphasis is on practical work and development of skill, through the stage of the middle schools which aim at all-round training, to the technical high schools, whose purpose is the training of research students. But whatever the emphasis in the lower and middle technical schools, the courses also provide for the training of the students in the theory, practice, and business knowledge pertaining to the industry taught. The most general foundation is afforded by drawing and design, arithmetic and geometry, German, economics, and civics, with specialisation in the appropriate sciences and technology. The practical work includes not merely training in skill and general industrial efficiency, with which most of the students are usually sufficiently equipped, but introduction to new machinery and experimentation. Business knowledge as a rule includes the study of the principles of production and consumption, sources of raw materials, markets, trade laws, cost and prices, and bookkeeping. In general the training of the technical schools is to enable the student to return to his work prepared, whatever his sphere may be, to perform it with greater skill and with an intelligence which is ever ready to take advantage of the guidance afforded by the experts in his own field.

XII. COMMERCIAL EDUCATION

The best organisation of commercial education is to be found in the continuation schools at one end of the scale and in the colleges of commerce at the other. Secondary schools for commerce, with some notable exceptions, have not met with much favour. The reasons for the neglect are to be found in the common belief that commercial success depends on a good general education, while from the point of view of the educator the function of the secondary school is to impart liberal rather than vocational training. The most successful institutions, indeed, are those that furnish a commercial training to students who have completed six years of a secondary school and have attained the privilege of one year military service. It is impossible, therefore, to speak of a system of commercial education of secondary grade. Tendencies alone can be indicated by reference to the practice in a few special institutions. The best types are the commercial real schools and the commercial higher schools. Proof of their unpopularity is indicated by the fact that in 1914 there were only seven schools of each class in the whole of Germany.

The Municipal Institute (*Städtische Lehranstalt*) at Frankfort includes commercial courses for apprentices and assistants, a girls' commercial course, a commercial real school, and a commercial higher school. The real school bears out the statement made above and elsewhere that the emphasis still tends to be on the general and cultural studies rather than on the vocational. The first three years of the work in the commercial real school is exactly the same as that of any other real school. In the last three years, by a rearrangement of the periods given to such subjects as singing, gymnastics, and drawing, time has been found for commercial arithmetic, bookkeeping, correspondence, and commercial science. The special subjects receive about the same amount of time as they do in the continuation schools. The graduates of the commercial real school by virtue of the privilege of one year military service and a better general education take precedence in the business world over the ordinary apprentice who has only enjoyed the education of a continuation school. The real school is under the supervision and control of the Ministry of Education and Public Worship for all subjects except the commercial, which are placed under the control of the Ministry of Commerce and Industry.

The commercial higher school of the institute is entirely under the control of the Ministry of Commerce and Industry. Candidates for admission to the course of two years must have completed six years of a secondary school. The work of this school is more purely technical as may be indicated by an enumeration of the subjects: German, French, and English language and correspondence, commercial arithmetic, commercial theory and correspondence, bookkeeping, commercial and banking law, economics, general and commercial history, geography of commerce and trade, physics, chemistry and chemical technology, commodities of commerce and mechanical technology, penmanship, and gymnastics. Spanish or Italian and stenography are optional subjects. The aim of the course is to familiarise the student with the chief departments of commercial activity and to give him a general knowledge of the principal industrial processes connected with it. The Frankfort school is the only one of the seven commercial higher schools giving a two-year course; the remainder limit themselves to one year.

The Commercial Institute (*Oeffentliche Handelslehranstalt*) at Leipzig also offers a large variety of courses, including a three-year course for apprentices who can only devote twelve hours a week to the schoolwork, a three-year full-time course (the scholars' course), a one-year apprentices' course, and a one-year scholars' course. Candidates for admission to the three-year courses must have completed a higher-elementary school, while the completion of a six-year secondary school is required for the one-year course. The work of the scholars' courses corresponds very closely to the course of the Frankfort commercial higher school. The apprentices' courses cover somewhat more intensively the work of the continuation schools with the addition of two foreign languages.

In addition to the types of schools and courses dealt with so far, there are also a number of public and private ordinary commercial schools and commercial evening-school courses organised by chambers of commerce. The highest grade of commercial training is given in the six colleges of commerce at Leipzig, Cologne, Frankfort, Mannheim, Munich, and Berlin. The colleges at Leipzig and Frankfort are departments of universities. The function of these institutions is to train the leaders in the commercial world, candidates for the consular service, secretaries of chambers of commerce and other commercial administrative positions, and teachers of commercial subjects. The existence of the higher institutions does not seem to have affected the other commercial schools to any great degree, perhaps because there is no articulation between them or because the demand for highly trained teachers of commerce, such as the graduates of the colleges would be, is not very great. In the field of commerce as in other departments of life in Germany the tendency towards stratification into separate groups is hampering the development of an all-round system of education. Training for commercial careers is not yet as well organised as the corresponding system of training for industrial and technical pursuits.

XIII. TEACHERS OF VOCATIONAL SUBJECTS

One of the chief difficulties in the organisation and development of vocational education has been the training and supply of teachers. The first impulse was to appoint part-time teachers from elementary and other schools in the hope that their teaching experience and knowledge of method would enable them to cope with new subject-matter. Probably the resulting inefficiency strengthened the hands of those who demanded separate control for vocational schools. It was soon found that the success of the vocational schools demanded a type of teacher different from those familiar only with the teaching of young children or with the imparting of subject-matter alone. Two solutions of the difficulty offered themselves. Teachers with experience in the ordinary schools could be selected and sent to the technical schools for a course of training in vocational subjects, or skilled artisans might be appointed and given a special course in pedagogy and methods of teaching. Both these practices have been adopted. The experiment in the training of teachers for vocational schools is, however, too recent to warrant any conclusion on the relative merits of the two schemes. The problem chiefly affects the selection of teachers for continuation schools and lower technical or trade schools; the majority of the teachers in the middle technical schools are as a rule graduates of universities and technical high schools.

At Munich in the selection of teachers for the continuation schools, Dr. Kerschensteiner leans somewhat in favour of appointing skilled artisans with some training in educational methods. He finds that such teachers, although perhaps lacking in confidence, are not as bound by routine nor as much out of touch with practical industrial needs as professional teachers. The artisan teacher is more likely to understand and therefore to inspire pupils with the meaning of the dignity of labour. From an administrative standpoint there is an advantage in appointing such teachers because they serve as a link between the schools and the labour unions, which are not infrequently invited to suggest candidates for appointment. The usual practice, when a vacancy for a trade teacher occurs, is to select candidates after an examination in drawing of plans, expense and cost accounts, and the execution of a piece of practical work. The selected candidates are required to do practice work in a workshop for twelve months, with pay during the second half of this period. Paralleling the practice work the candidates attend lectures on the theory of education, technology, and tool and machine construction. On passing an examination in these subjects and in practical teaching the successful candidates receive their appointments.

In Württemberg artisans and professional elementary-school teachers are admitted as candidates for appointments in vocational schools, but are given different kinds of training. For the artisans or technical men a training course of fifteen months has been organised at Stuttgart. The first year of the course is devoted to a general review of special branches and study of correlated trades, business routine, and pedagogy. The last three months are spent in a review of the whole work in preparation for the teachers' examination. This type of candidate receives no financial assistance from the state. The elementary-school teacher who desires to devote himself to vocational training is sent by the state to the Building Trades School at Karlsruhe in Baden and is given a small subsidy towards defraying the expenses of the course. This school offers a variety of industrial courses, of which one is concerned with the training of industrial teachers. The course lasts seven semesters. Candidates must have the qualifications for appointment in an elementary school, or have completed the requirements for the one year military service privilege, or have passed through the first three classes of the industrial teachers' division of the school. The entrance requirements consist of an examination in German composition, mathematics, descriptive geometry, physics, chemistry, elements of mechanics, freehand drawing, and painting. Before completing the course candidates must have had practical experience in some industry, one year for elementary-school teachers and two years for those who come from secondary schools. The final examination includes for all candidates grammar of form, and elements of the history and technique of industrial art, science of materials and mechanical technology, applied drawing and painting, modelling, political economy and legal principles, bookkeeping and cost-accounting, and pedagogy and method. In addition, candidates are given examinations according to their specialisation in building or machine trades.

Since 1912 the Prussian authorities have organised a one-year course at Charlottenburg for the training of full-time industrial teachers in metal work, building trades, and art industries. In 1915 courses were added in foods and produce and the clothing industries. Candidates, who must be between the ages of twenty-four and thirty-five, are admitted by examination. They include artisans with good general education and three years of practical experience, elementary-school teachers familiar with the technique of trade drawing and with industrial experience, and others with equal qualifications. The course includes pedagogy and general subjects, drawing, and trade information in the branch selected by the candidates. The work is so arranged that those who have already had teaching experience devote more time to industrial subjects, while the artisans spend more time on pedagogy and methods. It is planned to extend the course to two years.

The selection of commercial teachers is surrounded with the same difficulties that were mentioned with reference to industrial teachers. Much less progress has, however, been made in devising successful methods of training teachers for commercial schools. The choice of teachers of the purely technical subjects appears to be limited to the teachers in elementary schools or to men with practical experience. Extension courses have been established to train elementary-school teachers, while several cities require teachers in commercial schools to be graduates of colleges of commerce. A special examination for commercial teachers has been established in Baden, which includes German composition and business correspondence, bookkeeping, foreign languages, stenography and typewriting, general economic geography, political economy and finance, legal principles, history of commerce, pedagogy, and method. Candidates for the examination must be elementary-school teachers or must have completed the requirements for the one year military privilege, must have had one or two years of practical experience in business, and must have attended an institution for the training of commercial teachers for at least two years. For the present the Baden system still holds the position of leadership in the standards imposed on commercial teachers. Courses for the training of commercial teachers have been organised in the colleges of commerce, as, for example, at Cologne and Leipzig, but the number attending these each year is still very small. The further development of a system of training of teachers for commercial schools in other states depends on a more sympathetic appreciation by the business world of the work of the commercial schools of secondary grade.

XIV. VOCATIONAL EDUCATION FOR GIRLS

In spite of the remarkably rapid increase during the past thirty years in the number of women employed in industry and commerce, Germany has been strangely backward in providing adequate facilities for their training. It was estimated in 1901 that of the vast army of wage-earning women in Prussia only about three per cent. were receiving some preparation for their callings. The reasons for this situation are obvious. The tradition that the sphere of the woman is the home has persisted longer in Germany than in other countries in spite of the preponderance of women over men in recent censuses. It was accordingly regarded as a wasteful expenditure of money to train girls for occupations in which they would only engage for a comparatively few years. Nor, on the other hand, was any special training regarded as necessary for the majority of the vocations into which girls were likely to enter. For domestic service or the needle industries the homes were supposed to provide sufficient preparation, while for positions in commercial offices the ordinary schools were expected to furnish appropriate equipment before stenographers and typists came into general demand and commercial work was reduced to a science.

It is, therefore, not surprising to find that the facilities for the further education of girls are neither as adequate nor as satisfactory as they are for boys. Attendance at continuation schools is compulsory for girls only in four states—Bavaria, Württemberg, Baden, and Saxe-Meiningen; while in six other states—Saxony, Hesse, Saxe-Weimar, Saxe-Coburg, Saxe-Gotha, and Saxe-Altenburg—it may be made compulsory by local bylaw. The Imperial Trade Ordinance, which makes attendance at continuation schools compulsory when established by local authorities, also covers the case of girls.

Since 1895 the Bavarian regulations only require an attendance of one year in continuation schools from girls who have spent an eighth year in the elementary schools, only seven years being compulsory. Other girls must attend for three years from the ages of fourteen to seventeen. Industrial and commercial courses have been established, but in place of civics in the boys' schools, housewifery and a general subject on life responsibilities (*Lebenskunde*) have been introduced in all the courses. The aim in general is to provide a training for the future mother comparable with the training of the future citizen.

Compulsory attendance was introduced in Berlin in 1913 for all girls between the ages of fourteen and eighteen. Courses are organised for unskilled workers and to meet the needs of local industries, such as the manufacture of feathers and artificial flowers, millinery, tailoring and dressmaking, sales girls, and business. The courses include arithmetic, drawing, housekeeping, occupational information, and life information. One-fourth of the time is devoted to housekeeping, which includes sewing, dressmaking, laundry work, and cookery. The occupational information deals with hygiene of occupations, the position of the worker in society, vocational guidance, relations between employers and employees, wages, and general industrial knowledge. The subjects covered under the general title of life information include the relation of the girl to the family; the girl as wife, together with such topics as betrothals, dowry, and the position of the wife as a member of society; the girl as mother, including the education of the child, the relation of the child to the state, the authority of the state and the empire, conscription, and military service. In general, if the work of the Munich continuation schools aims to train boys as workmen and citizens, the Berlin schools are intended to train girls to be fit companions for and the mothers of such citizens.

Increasing recognition is being given to the importance of providing more full-time institutions for the vocational training of girls. Up to the present the leadership in the movement has been taken by women's societies and municipal authorities. Among the first organisations to devote themselves to this subject was the *Lette Verein*, established in Berlin in 1865. The society aims to encourage and promote the establishment of institutions for the industrial and commercial training of girls, and to collect and supply information on the opportunities for securing preparation for and positions in vocations suitable for girls. The society itself maintains an institution which gives a commercial course of two years, a variety of industrial courses in the needle industries, handicrafts, and art trades, and courses in homemaking. The majority of the students are expected to take some work in the last-mentioned courses in addition to their own special study.

The Swabian Women's Society has established itinerant courses in housekeeping, and also maintains a Women's Work School (*Frauenarbeitsschule*) which trains for the home, business, women's industries, and art trades, and is ready to add new courses whenever they are demanded. The city of Stuttgart subsidises the school. Similar institutions are maintained by the Women's Societies in Frankfort and Munich.

The Prussian government has more recently established three state schools of domestic science and art at Posen, Rheydt, and Potsdam. Beside courses for the training of teachers of vocational and domestic subjects, these schools also offer facilities for training for industrial and commercial pursuits and in the household arts. The school at Potsdam has a Professional Housekeeper's Course which consists of housekeeping and housework, washing and ironing, cookery and baking, plain needlework, machine sewing and white wear, dressmaking, millinery, fancy needlework and drawing, and painting.

The few examples that have been cited should be sufficient to indicate that a vast field of educational activity remains to be organised. The problem of combining satisfactory industrial preparation with training for the future mothers of citizens and soldiers undoubtedly presents difficulties. The guess may be hazarded, however, that, if women had counted for as much in the state policy of Germany as men, a solution would have been discovered earlier, comparable in excellence to the comprehensive organisation for the vocational and technical preparation of the nation's manhood.

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CHAPTER III

EDUCATION IN ENGLAND

I. INTRODUCTION

According to the 1911 census England had a population of 34,043,076, distributed over 50,939 square miles of territory, thus giving an average of 667 persons to the square mile. The great density of population makes the problem of educational administration in England different from that of Canada or even of the United States, where the people are so sparsely scattered that the one-teacher rural school may still be regarded as typical of the country. In England such schools are almost unknown, for although some twenty per cent. of the people still live in rural areas, they tend to gather into villages of a fair size. Again, communications by road and railway are so good that few homes experience the isolation which so often befalls the homesteader of Canada and the United States. England's educational problem, therefore, is predominantly an urban one; her typical school is the many-teachered urban school.

Other geographical factors that affect the educational problem are those which have made her a great commercial and industrial nation. Her insular position has granted her peace for internal development. Great tidal estuaries provide safe anchorage for her ships, while the contour of the coast is such that no part of the country is more than seventy miles from the sea. Rich deposits of coal, iron, and other minerals provide the raw material for extensive manufactures, which, more than anything else, determine the form of the educational problem in the many centres of industry.

Historically speaking, England is an old country. While she cannot boast of a civilisation as old as that of China or India or Italy, she enjoys a political freedom far older than theirs. The English Heptarchy dates back a thousand years; Germany's Heptarchy, the stage of development in that country prior to the Franco-German War, is within the memory of living persons. Such is the political solidarity of Great Britain that her people take it as a matter of course and would be painfully shocked if Scotland or Wales threatened to revolt. Political institutions are stable in England, and anything in the nature of violent upheaval and rapid change is abhorrent to the English mind. Gradual evolution she tolerates; revolution of any kind repels her. She is "a land of evolution rather than revolution." Facts like these explain the slowness of reform in England. It takes a long time for the radical views of the minority to leaven the views of the conservative majority. Yet reforms do take place. England never sits on the safety valve; in every crisis her sound, practical common sense saves the situation.

For good or evil John Stuart Mill is the spiritual father of English politics. English statesmen, for the most part, have absorbed his views on individual liberty and made them their own. It is no accident that in Oxford and Cambridge Universities, where the majority of political leaders are educated, Mill's work *On Liberty* ranks almost as a sacred text. His definition of the principle of individual and social liberty has become, as it were, the common heritage of the people, governing their actions in a thousand and one unknown and obscure ways. Liberty he defines in the following passage:

> "The object of this essay is to assert one very simple principle, as entitled to govern absolutely the dealings of society with the individual in the way of compulsion and control, whether the means need be physical force in the form of legal penalties, or the moral coercion of public opinion. That principle is, that the sole end for which mankind are warranted, individually or collectively, in interfering with the liberty of action of any of their number, is self-protection. That the only purpose for which power can be rightfully exercised over any member of a civilised community against his will, is to prevent harm to others. His own good, either physical or moral, is not a sufficient warrant. He cannot rightfully be compelled to do or forbear because it will be better for him to do so, because it will make him happier, because, in the opinion of others, to do so would be wise or even right. These are good reasons for remonstrating with him, or reasoning with him, or persuading him, or entreating him, but not for compelling him or visiting him with any evil in case he do otherwise. To justify that, the conduct from which it is desired to deter him, must be calculated to produce evil to some one else. The only part of the conduct of any one for which he is amenable to society, is that which concerns others. In the part which merely concerns himself, his independence is, of right, absolute. Over himself, over his own body and mind, the individual is sovereign." [1]

Contrast these views with the Treitschkean or German conception of the relation of the state to the individual: "The state is power." "The essence of the state consists in this, that it can suffer no higher power above itself." "The state has no higher judge above it, and will therefore conclude all its treaties with that silent reservation." "We cannot distinguish between public and private morality." "Silent obedience to superiors, and at the same time strict discipline with inferiors, demand an independence of character which is very highly to be appraised."[1] Here we find the state elevated into a sort of superman or god, which must be implicitly obeyed, nay, almost worshipped by the individuals composing it. The state can do no wrong; the code of ethics for the individual does not apply to the state. In return for implicit obedience to its authority the state not only protects the individual against alien aggression, but also ensures him a livelihood by giving him a sound training in commerce and industry, houses him in model dwellings in sanitary cities, and pensions him during disability and old age. Life runs so smoothly for him that the critical sense is dulled. The state thinks for him, relieves him from the responsibility of making decisions upon questions which vex and rend mankind elsewhere, and guides him firmly into those paths which the state deems good. England allows each of her citizens to choose whether, and in what way, he shall serve his country. Germany places her citizens in the position which suits her purpose best. Efficiency of a kind certainly results from the German practice, but the cost—that of individual initiative—is much too great. Such subservience to the state would not, in normal times, be tolerated for a moment in England, much less in the United States. In both these countries the salvation of the state must be worked out through the individual. Individual enterprise and initiative are therefore encouraged, and although the method is costly and apparently inefficient, it undoubtedly pays in the long run.

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[1] Mill, *On Liberty*, pp. 20–21.

No educational system can afford to neglect or run contrary to the dominant racial characteristics of the people. Especially true is this in England, where ethnological traits are so deeply rooted. The Englishman is aggressive, fond of competition, and, at heart, a rover. None but the aggressive rover could conquer and settle in England, and the present British Empire and the United States are standing proofs that these traits still persist. This inveterate instinct for competition is concealed from the scrutiny of the casual observer by a thick layer of mental laziness. The Englishman hates theories and theorising; he loves to come to grips with the practical problems of life and solve them as he goes along. He is a constitutional pragmatist. Consequently he appears stolid and lacking in imagination. It is difficult to arouse him. Like anthracite, he catches fire slowly, but once alight he burns to the last ash. Professor John Dewey once said to the writer that the Englishman had tremendous reserves of strength stored away under an indifferent exterior, reserves which were only drawn upon for the greatest emergencies. This view is apparently a true one. The Englishman is tenacious; he never admits that a task is too big for him. If this never-admit-you-are-beaten attitude were once destroyed the whole fabric of English national life would crumble to dust. But above all, the Englishman loves individual liberty. For more than a millennium he has fought for it; Magna Carta and Habeas Corpus mean more to him than he cares to acknowledge.

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[1] Treitschke, *Lectures on Politics*.

The Englishman is lazy intellectually and has a deep-seated love of liberty. These traits have caused the adoption of a *laissez-faire* policy, not only in politics, but also in education. There has been exhibited a timidity, even a positive shrinking from the exercise of coercion in any shape or form. The English educational system, like the English Constitution, can hardly be ascribed to conscious human design or volition. Nothing in it bears the imprint of the manufactured article. The people feared the domination of the state. Consequently a national system of education developed later in England than elsewhere. Educational salvation was to be secured through individual effort and experimentation. To this day private voluntary schools flourish by the thousand, while educational efforts and experiments of the most diverse forms are to be found in every part of the country. In spite of the growing power of the Board of Education, local control is still a more potent factor in shaping the educational destinies of the nation than is the centralised administration.

This instinctive desire for liberty, this latitude, this freedom of initiative are exhibited in many ways. Educational legislation is almost invariably permissive in its opening phases. As soon as the people at large have experienced the benefits of it, and have overcome their conservative antipathy to something which is new-fangled and therefore suspect, compulsory legislation is introduced. Individual liberty gives way to the good of society as a whole. Thus compulsory attendance has followed voluntary attendance at school, compulsory medical inspection has followed voluntary medical inspection of both schools and scholars, and compulsory training has followed voluntary training of teachers. Examples such as these might be multiplied a hundred times.

There is shown also a profound respect for the individual liberty of each school and teacher. The reason why private schools are tolerated, many of them patently inefficient, is that some of them give expression to varieties of thought and principles that a state system finds it difficult or impossible to recognise. Gradually, however, many of the voluntary schools are submitting themselves to state examination and control, and in so doing are finding the condition compatible with a continued exhibition of marked individuality. The gradual disappearance of the fear of the Board of Education is shown by some of the large "public schools" inviting the Board's inspectors to report on their educational efficiency. The inspection of Harrow and Eton by the Board are cases in point. These schools will probably remain private schools forever, yet the governors of each institution were anxious to know what the central authority for education thought of their equipment and methods of teaching.

The teacher in English schools, and especially the head-teacher, has far greater freedom than in any other country. The headmaster is invariably "captain on his own deck." In secondary schools the appointment and dismissal of teachers is largely in his hands; in both elementary and secondary schools, with the assistance of his staff, he frames his own curriculum and makes his own time-table. The Board of Education offers suggestions of various sorts, but if a teacher can produce a better scheme than the Board it is accepted without demur. Even experimentation in new methods of teaching and in the organisation of new departments within schools receive the official and financial encouragement of the Board. England seems to fear one thing, namely, that the teaching shall present a deadly uniformity throughout the country and be unrelieved by the faintest spark of originality.

These expressions of freedom bring some evil in their train. It is not every teacher who is fit to be trusted so completely. And control is difficult, chiefly because it is difficult to test the results of such forms of education. Efficiency of the obvious German type is impossible of attainment in the English schools. That is not the desired end. Yet efficiency of a very real, though somewhat subtle, type is undoubtedly present. It would almost seem that obvious efficiency is distrusted, even despised, by the average Englishman, and that is one reason why England has been so persistently misjudged by people of other nationalities.

Another marked feature of English educational administration is its inherent conservatism. Things are seldom done in a hurry. America would try a dozen methods of teaching or new forms of administration and probably discard them all while England was debating one of them. She is afraid of "throwing away the baby with the water from the bath." This conservatism, which tries to preserve the best of the old, has its good points, but it drives the radically-minded to distraction. It is excellently shown in the various Education Acts which Parliament passes. There is never a clean sweep; each act is invariably a compromise. English education would undoubtedly benefit by a consolidation of her Education Acts, for at present few people have a complete or even a working knowledge of them.

Yet a change is coming over England. Since 1900 the conservatism has been less in evidence than aforetime. In fact the recent changes have been many and marked. As yet few realise their profound significance. The majority simply know that something is happening in the educational world, that things are changing rapidly. They feel vaguely perturbed, but are, as yet, inarticulate. Beneath the surface, however, the conflict between the reformer and the conservative is constant, if silent. A knowledge of the forces at work is necessary for the proper appreciation of England's educational system.

II. CENTRAL CONTROL OF EDUCATION

The consolidation of all forms of English education under one central authority is not yet complete. In the first place, a very large, though unknown, number of private schools exist outside the jurisdiction of the Board of Education. Reformatory and industrial schools, together with the children who are employed in mills and factories, are still controlled by the *Home Secretary*. The *Local Government Board* inspects the premises and general arrangements of poor law schools, although the Board of Education supervises the educational work of these institutions. The *Board of Agriculture* has placed upon it the responsibility for the organisation of farm institutes and the agricultural work of universities and colleges, but it works in very close co-operation with the Board of Education in directing the agricultural education of the country. Army schools for soldiers and their children fall within the jurisdiction of the *War Office*. The *Admiralty* is the central authority for a complex system of navy schools giving elementary education, not only to children of mariners and persons in Admiralty employment, but also to boys in training, in sea-going ships, and in the mechanical training establishments at Portsmouth and Devonport, and to mariners and bluejackets in service either at home or afloat. The powers of the *Charity Commissioners*, who formerly controlled the endowed secondary education of England, have practically all been transferred to the Board of Education. The grants to universities and university colleges are paid direct from the *Treasury* and not through the Board of Education, while the Customs and Excise Residue Grants are also paid direct to the various local education authorities.

The Board of Education.—With these exceptions, and on the whole they are minor exceptions, the *Board of Education* may be said to be *the* central authority for English education. This Board was created in 1899, although its origins can be traced back to two sources—the Committee of the Privy Council formed in 1839 and the Science and Art Department, officially created in 1853, but dating back to 1835. The Committee of the Privy Council was transformed into the Education Department in 1856, the Science and Art Department being placed simultaneously under the same administrative head. Dual control seldom works well, and so it proved in this case. The Bryce Commission on Secondary Education, reporting in 1895, showed that a unified, central authority was essential to any scheme of educational reform in England, and recommended the constitution of a department of the executive government, presided over by a minister responsible to Parliament, to whom elementary, secondary, and other forms of education should be entrusted. Their recommendations were carried out almost to the letter.

The Board is composed of a president, the five secretaries of state, the first commissioner of the Treasury, and the Chancellor of the Exchequer, but such are the perversities of English constitutional custom that it has never met and probably never will. It simply provides phantom legal colleagues for a single minister, who is responsible to Parliament and, through Parliament, to the country at large.

Parliament is as yet but mildly interested in education, although there are signs of an awakening. It has, however, definite control over education in two ways: firstly, by the control of finances which are voted upon each year (in the Budget); and, secondly, through the President of the Board, who has a seat in the cabinet and is responsible to the people for the proper conduct of his department.

The President of the Board, who is thus the Minister of Education, is appointed by the king. He is usually a layman and therefore needs the advice and service of experts. This is obtained through the civil service. While the general rule for filling positions in the civil service is by open competitive examination, those in the Board of Education are filled by nomination. Such a method of appointment is clearly open to abuse. Yet it has not seriously been abused. Most of the appointments can be justified on purely educational grounds, although there is a feeling that Oxford and Cambridge graduates have a monopoly of positions under the Board. Quite recently the elementary teachers of the country have forced the Board to appoint several of their number to positions in the elementary-school inspectorate. The minor positions of the Board should certainly be filled through the channel of the open examination, if only to allay fears of possible favouritism and appointment through social or family influence.

The officers of the Board holding civil service appointments are of two main kinds—*examiners* and *inspectors*. Examiners may be described as the central office staff; inspectors as the field staff, who work in the various inspectorates of the country.

Examiners attend to the routine work of the Board. They compile statistics, receive and edit inspectors' reports before forwarding them to the local authorities, and determine the amount of grant earned by each school under government control. In addition, and often with the co-operation of inspectors, they prepare the annual reports, codes, regulations, suggestions as to methods of teaching, circulars, memoranda, and blanks for statistical and other returns.

The office of *inspector* has long been held in high esteem, and the fact that it could claim the life services of a man as distinguished as Matthew Arnold speaks for itself. The majority of inspectors, in spite of their somewhat unusual method of appointment, are well qualified for their tasks and have enough sense to let well enough alone. Their whole aim and object is to encourage the best in education wherever found, so that experimentation with new methods or curricula finds in them warm supporters. Through inspectors the Board aims "to organise efficient sources of educational information and to disseminate in convenient fashion results, criticism, and suggestions, derived from continuously recorded observation of educational experiments and of the daily work of the various kinds of schools and teachers. Such observations, to be authoritative, must in the case of each kind of school be *made over a wide area*." [1]

Accordingly the whole country is divided for inspectorial purposes into nine areas. In each area inspection for three divisions of education is instituted—one for public elementary schools; a second for technical and continuation schools; and a third for secondary schools and pupil-teacher centres.[2]

The standing of English inspectors may be judged from the emoluments they receive. The salary scales are as follows:

Chief inspectors	£1,000–1,200
Divisional inspectors	800– 950
Staff inspectors	800– 900
Inspectors	400– 800 or 850
Sub-inspectors	195– 440 or 520
Assistant inspectors	200– 400
Junior inspectors	200– 400

They are therefore fairly well paid. They enjoy a secure appointment for life, an assured social position in the community, and on reaching the age of sixty-five they retire upon an adequate pension.

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[1] Board of Education, *Circular to Inspectors*, 532.

[2] These three divisions of education correspond to the organisation of education within the Board. Such divisions are certainly illogical and probably unwise. Why, for example, should training colleges be placed under the elementary branch (even though there is a training-of-teachers' division organised within it) when bursars and other intending teachers are under the secondary branch? Further, continuation schools are not technical, and placing them under the technological branch does not make them so. The co-operation which exists within each of the nine inspectorial divisions does not remove the fundamental mal-organisation of the Board of Education, and signs are not wanting which show that the danger of each branch becoming a sort of water-tight compartment is not wholly imaginary. What is really needed at the Board is a devolution of a large part of its authority to a few, perhaps nine, local areas, which would enjoy a sort of educational home rule. There is certainly a very large amount of routine work which could better be performed in a local office. For example, such details as the passing of plans of schools, the approval of individual schools, and the reports on these schools could just as well be referred to a large local office as an enormous central office. Local pride in education would be fostered, and co-ordination between the various forms of education in an area would be greatly improved. The Board could still retain its authority and control through a small staff of supervisory inspectors, and could devote its chief attention to the preparation of codes, regulations, memoranda, and suggestions of various kinds, which would elaborate fundamental principles in education and have country-wide instead of merely local value.

The powers of an elementary-school inspector, though invariably used with discretion, are nevertheless extremely wide. He may visit a school as frequently or as infrequently as he likes, providing one visit is paid each year; he must approve the curriculum and the time-table; and he must report on the teaching and the condition of the school premises and equipment. No annual parliamentary grants are paid on behalf of a school unless the report of an inspector is satisfactory. But the inspector seldom tries directly to improve the work of the teacher. He may discuss and offer suggestions on the syllabuses drawn up by the head-teacher, and he may confer with the teachers on shortcomings in their methods of instruction, but for purposes of improvement the relations are not sufficiently sustained. The whole difficulty arises from the fact that it is uncertain whether or not an inspector should exercise supervisory as well as inspectorial functions. The inspector should confine himself to inspection as broadly interpreted; supervision, in the American sense of the term, is undoubtedly a matter for the local education committee.

The task of the secondary-school inspector is still a delicate one. Headmasters of secondary schools, especially those of schools of ancient foundation and tradition, have a great dread of anything in the nature of a bureaucratic interference, or of any attempts to impose upon their schools uniformity of methods and curriculum. Consequently the inspectors have had to tread warily to avoid wounding susceptibilities. It speaks well for them that they have given general satisfaction, and that secondary schools now numbering over 1000 have placed themselves under state inspection in return for state grants. Since 1908 many private secondary schools have requested examination by the Board's inspectors, and wherever they have measured up to standard have been certified as "efficient," although, of course, they receive no parliamentary grants.

The work of the secondary inspector is of two kinds—district and full inspection. District work deals with every side of local administration and educational policy which touches secondary schools. The full inspection is distinctive of the work of the secondary inspector. It takes place at intervals varying from four to six years. Due notice is always given and from two to eight inspectors attend. The inspection lasts from two to five days, never more. At the close there is a conference between the inspectors and the governing body of the school, to which the head-teacher is always invited. The full inspection is thus an educational stocktaking, followed by recommendations for improvement, both of equipment and teaching. So far as the writer is aware, nothing approaching the friendly intimacy of these full inspections is to be found in any other country. It is England's method of promoting reforms through individual channels, and it undoubtedly works well.

Connected with the Board are two agencies which have a less direct effect upon education than inspection and the distribution of parliament grants, yet their influence is nevertheless most potent. These are the Consultative Committee and the Department of Special Inquiries and Reports. The *Consultative Committee* consists of twenty-one members representative of every educational interest in the country. There is, however, no statutory guarantee that such an excellent balance of interests will be preserved in the future, since new appointments are filled solely by the President of the Board. The main duty of the Consultative Committee is to report upon any matter submitted to it by the Board. The committee's reports are excellent in every way, and have no doubt given that scientific direction to English education which has been so fruitful during the present century.

The *Department of Special Inquiries and Reports* has an even freer hand. Whereas the Consultative Committee is restricted to domestic policies, the Department of Special Inquiries and Reports can take the whole world for its province. Dr. Sadler, the first director, interpreted his mission in a broad catholic way. Consequently the reports prepared under his direction have become world-famous and justly so, for since the time of Barnard's *American Journal of Education* no treatment of educational problems has been quite so comprehensive or reliable. Sadler completed eleven volumes, his successor has completed seventeen more, but the later reports have failed to maintain the high standard exhibited by the earlier ones, and have become decidedly more provincial in character and local in tone.

Enough has perhaps been said to show the great importance of the work delegated to the Board of Education. Developing from a Committee of the Privy Council which controlled no schools and only disbursed a yearly grant of £30,000, it now controls thousands of educational institutions and assists in their maintenance with grants which amount to upwards of £14,000,000. Some idea of the extent of the educational interests under the direct control of the Board of Education can be obtained by reference to the accompanying tables:

Table showing the Number of Institutions in England and Wales under the Control of the Board of Education in 1914

Type of institution.	Number of institutions.	Scholars in attendance.
A. Elementary schools:		
1. Ordinary public elementary schools	21,016	6,036,122
2. Higher elementary schools . .	47	11,381
3. Special schools	375	27,451
4. Certified efficient schools . .	59	3,941
	21,497	6,078,895
B. Secondary schools:		
1. For boys	397	Boys 99,171 Girls 88,036
2. For girls	349	
3. For boys and girls	281	
	1,027	187,207
C. Technical schools and classes:		
1. Evening schools	6,786	798,881
2. Courses for adults	519	—
3. Technical institutions	27	1,495
4. Day technical institutions . .	113	13,201
5. Schools of art	208	—
	7,653	—
D. Teacher-training institutions:		
1. Preparatory classes for pupil-teachers	26	852
2. Pupil-teacher centres	435	3,389
3. Secondary schools educating bursars	641	3,230
4. Training colleges for elementary teachers	87	11,728
5. Training colleges for secondary teachers	21	180
6. Training colleges for domestic science teachers	14	1,214
Total . .	1,224	20,593

Table showing the Expenditure of the Board of Education out of the Parliamentary Vote for 1912–13.

On account of	Amount.
1. *Administration, inspection, and examination*	£ 428,457
2. *Public elementary schools :*	
(*a*) Aid grants to local education authorities . .	2,454,492
(*b*) Special grants to aid poor areas	350,000
(*c*) Grants for ordinary public elementary schools .	8,614,951
(*d*) Grants for higher elementary schools . . .	23,301
(*e*) Grants to schools for the blind, deaf, defective, and epileptic	98,321
(*f*) Grants for medical care and treatment . . .	50,374
(*g*) Allowances and pensions for certificated teachers .	156,888
Total	11,748,327
3. *Secondary schools, pupil teachers, bursars, etc.:*	
(*a*) Grants for secondary schools	668,437
(*b*) Grants for pupil-teachers and preparatory classes .	41,295
(*c*) Grants for bursars	39,626
Total	749,358
4. *Technical, art, and evening schools :*	
(*a*) Technical institution courses	10,429
(*b*) Day technical classes	27,127
(*c*) Schools of art and art classes	67,662
(*d*) Evening and similar schools	480,650
Total	585,868
5. *Training of teachers*	583,127
6 *Grants to museums, higher institutions of learning, etc.* .	244,181
Total	14,339,318

The story of English education during the nineteenth century is one of increasing government control. Increased public grants for education have always been paralleled by increasing central control. Aid was at first given on the basis of an approved school building, but gradually other guarantees of efficiency were demanded, such as the competence of the school staff, regularity of attendance of scholars, attainments of individual scholars, and lastly the efficiency of instruction as a whole. Yet a bureaucracy was never established. The spirit of freedom had been maintained in the individual schools through the jealous watchfulness of citizens who, above everything else, value liberty.

III. THE LOCAL EDUCATION AUTHORITIES

Perhaps the greatest task confronting the legislators of any country is that of preserving a proper balance between local and central authorities. If the central authority be aggrandised, the inevitable result is the growth of a bureaucratic spirit with the consequent decline of local interest in schools. On the other hand, if the emphasis be placed on the local authority, and especially if that authority be small, the result is inefficiency, due to restricted vision and the lack of proper standards and control.

Local Units for Education.—When England passed her first Elementary Education Act in 1870 she made the mistake of creating a local unit which was too small. Local control over education was placed in the hands of school boards which were *ad hoc* bodies elected by popular vote in each parish. That the local interest in education was very great can be judged by the fact that prior to their abolition in 1902 there were more than 2500 of these boards in existence. The members of the school boards were earnest workers in the cause of education and served without pay. But the English parish was hopelessly small; co-ordination of the work of the schools was impossible and the cost relatively great.

In seeking for a larger local unit for education the framers of the Education Act of 1902 adopted the plan of utilising the areas already in existence for the administration of other public services. School boards disappeared and education became one with trams, gas, water, electricity, and street maintenance.

The local government areas of England, now the local areas for education as well, are four in number: administrative counties, county boroughs, municipal boroughs, and urban districts. An *administrative county* is identical with a geographical county (or with one of its main divisions, as is the case with Yorkshire and Lincolnshire) except for the exclusion of the relatively small but densely peopled areas of the autonomous county boroughs within it. There are at present fifty administrative counties in England, of which London is one. A *county borough* is a city having upwards of 50,000 inhabitants. As its name implies, it has allotted to it all the powers of a county, so far as local administration is concerned. There were seventy-six of them in 1914. A *municipal borough* is a smaller city, ranging in population from 10,000 to 50,000, which is permitted to manage certain aspects of its own affairs, but whose powers are more limited than those of a county or county borough. There were 123 in 1914, but the number fluctuates with local changes of population. An *urban district* is a subdivision of an administrative county and corresponds to the township or school section of some American states. Those with more than 20,000 population control elementary schools within their areas. There were forty such in 1914, most of them suburban in character.

The first draft of the Education Act of 1902 proposed to hand over all grades of schools to the counties and county boroughs, thus unifying and simplifying the local task of administration. Owing, however, to the opposition of municipal boroughs and the larger urban districts a modification was introduced. Powers over elementary education, but not over secondary education, were granted to municipal boroughs and the populous urban districts. Thus counties and county boroughs control all forms of education within their areas, while municipal boroughs and urban districts control only elementary education; their work for secondary, technical, and higher education remains under the charge of the county in which they are situated.

The Education Authorities.—The councils of the above-mentioned areas constitute the local authorities for education. As the councils are elected triennially by popular vote, some measure of public control is provided. But as education is only one of the many issues at elections, the membership of councils may be made up of persons whose primary interests are not educational. This contingency being foreseen, Parliament made it the statutory duty of councils to establish educational committees.

Education Committees.—The education committee of a council is composed of representatives from the council and as many co-opted members as will give fair representation to every educational interest. Women must be represented on the committee, and teachers and education officials are not excluded. The usual composition of the committee is two-thirds from the council and one-third from among persons of experience in education. The membership runs from fifteen to fifty, the usual number being about twenty-five. To the education committee are entrusted all powers over education except those connected with levying rates or borrowing money.

The education committee divides up its work among a number of sub-committees. In large areas these may run to as many as a dozen, but the more usual number is six, namely, one each for higher education, elementary education, evening schools, school management, school attendance, and finance. In all cases the sub-committees report to the general committee, which, in turn, reports to the whole council.

Even this subdivision of authority and control does not wholly remove the feeling that in some way or other there has been a decline in local interest since the school boards of the parishes were abolished. The county town seems very remote from the lonely school in a rural parish. Two methods of combating the difficulty have been devised. The first is voluntary on the part of the county council and consists in devolving part of its powers to district sub-committees which are recruited as far as possible from among members of the defunct school boards and others who have shown an active interest in local problems of education. Practically every large county has established some such scheme; the West Riding and the Essex County Councils have gone further in the matter than the others, and the experiment has met with great success.

Managers.—The second device is a statutory one. The Education Act compelled local authorities to establish a body of managers for each non-provided (voluntary) school in the country and for every provided (*i.e.* public school whose building is provided by the council) school in a county area. There are usually six managers to a school. For provided or council schools four of these are appointed by the county council (the provision of managers being optional for a county borough council) and two by the parish council. For non-provided or voluntary schools four of the managers are elected by the trust or religious body which owns the school building, two by the parish council. The non-provided school, therefore, in spite of the fact that it is financed in exactly the same way as the publicly provided school, remains under the effective control of a religious denomination. This has resulted in a bitter controversy between nonconformists and the members of the Church of England, and has helped to hinder educational progress in England more than any other single factor. The quarrel bids fair to die a natural death since school buildings do not last forever and no church seems rich enough to pay for the erection of a costly modern school building. The rate of transference of voluntary schools from the control of a religious denomination to that of a publicly elected non-denominational council is fairly rapid at present and will probably be accelerated in the future.

But in spite of religious bickerings which centre around them managers have more than justified their recognition. They are the people who have bridged the gap between the teacher in the school and a central, unknown, circular-despatching office in the distant county town, and have made him feel that his work is of real value to the nation. Briefly, they have given a human touch to the red tape of a centralised administration. Their powers are limited; they are not entrusted with the whole management of their schools. Though they can recommend a teacher for appointment to a position, the final word in the matter still remains with the county education committee. Even when such powers have been transferred to managers a difficulty still remains, namely, that of providing for the transfer and promotion of teachers. It would make for greater efficiency if some means could be devised whereby managers could promote the successful headmaster of a small school to a larger one and the certificated teacher who has rendered capable and faithful service to a headship.

Powers and Duties of Local Authorities.—The general duties of local authorities may be summed up as follows: to provide the machinery for the various forms of education, to receive and disburse the government grants for schools, and to levy local rates to make up the excess cost of education over the grants received from the government. In greater detail they comprise the power to provide (1) for elementary education of all children up to sixteen years of age; (2) for secondary and higher education, if such powers be conferred upon them by the Act of 1902; (3) for the training of teachers; (4) for the awarding of scholarships to students in schools, colleges, or universities; (5) for the medical inspection of school children; (6) for the feeding of necessitous school children whether with or without the co-operation of societies; and (7) for the provision of playgrounds where organised games may be played during school hours.

The general statement that it is the duty of the local authorities to provide the machinery for the various forms of education implies that a great number of functions must be exercised. The local authority, for example, must see that suitable school buildings are provided and adequately furnished; that free elementary education is provided for all children who desire it; that pupils intending to follow the teaching profession are suitably educated; that a properly qualified staff is secured; that bylaws for the compulsory attendance of children at school are framed and carried into effect; that the various forms of education are effectively co-ordinated; that constant improvement is made in schools with respect to equipment, staff, and courses of study; and that the various returns to the Board of Education are made adequately, accurately, and promptly. The local authority may also introduce special and industrial subjects into the curriculum; may establish employment registries; may co-operate with parents and employers in finding suitable employment for children leaving school; may provide conveyances for children living great distances from school; may provide country schools for town children; may provide special schools for truants, defectives, and incorrigibles; and, in a host of ways, provide for the material and moral welfare of the children under its care.

Thus the powers of a local authority are seen to be extremely wide. The Board of Education fixes minimum standards and sees that they are attained by means of its system of inspection, but otherwise leaves the local authority possessed of a high degree of independence. Consequently we find in English education, as in English life in general, that phenomenon best expressed by the biological term variability.

Officers of the Local Authority.—The chief executive officer of a local education authority is generally called a director of education. Sometimes, however, the term secretary or, more rarely, education officer or chief clerk is used. The American term superintendent is as unknown as his office. In America the superintendent is expected to initiate schemes, to contribute the professional direction and experience, and in general to supply the driving power for the educational machinery. Such a conception of the duties of the chief executive officer is somewhat foreign to English ideas. The English director as a rule does not direct. He seems to consider his duty done when he has carried out faithfully the instructions of his committee. The office of director is generously paid, and the majority of the incumbents are capable administrators, having been trained in education offices, but few of them can truthfully be called educationists. An increasing number of posts are being filled by university trained men, but there is as yet no insistent demand for men who have made a professional or scientific study of education. Until this is the case we may expect English education to be less efficient than it otherwise might be.

In fulfilling the duties of his office the director is assisted by an office staff organised into departments corresponding to the main divisions of education, and by a number of local inspectors and supervisors of special subjects like singing, woodwork, and physical training. The local inspector must not be confused with one of his majesty's inspectors; he does the work which falls to the lot of the assistant superintendent and supervising officers in America. In London the local inspectors are very competent men. The same remark, unfortunately, cannot be made of the local inspectors in many provincial cities. Only too frequently are the positions held by ex-elementary-school teachers who served under the vicious payment-by-results system, and they now seem impervious to more enlightened ideas in education. Local inspectors are able to keep in very close touch with the actual work of teaching in the school. Properly conceived, the office is one which could be made most fruitful for good. But it must be confessed that in this regard English education has still much to learn.

Any account of the local administration of education is incomplete which does not mention the unique organisation which is maintained to enforce school attendance. Every director of education controls the services of a large staff of school-attendance officers. London has 300 of them; Manchester 66. A large proportion of the government grant for education is paid on the basis of school attendances, hence a decrease in regularity means a financial loss to the local authority. In Manchester each one per cent. increase of attendance means an addition of £1000 to the local exchequer. If the enforcement of attendance were left to the police as it is in Germany the matter would be relatively simple. But England has to depend largely on moral suasion, though in extreme cases the force of the law is invoked. Nevertheless remarkable results are obtained. For the whole country, even when no allowances are made for inclement weather or epidemic sickness, an average attendance of eighty-eight to ninety per cent. is secured.

These excellent figures are the result of careful organisation. The local area is mapped out into districts and over each a school-attendance officer is placed. A duplicate set of registers is supplied to him weekly from each school in his district and the case of any child absenting himself investigated. Usually one visit to the home proves effective, but where the result is still unsatisfactory the parent is brought before a special sub-committee of the education committee. If no improvement is obtained the parents are prosecuted before the magistrate.

The school-attendance officer also takes the census of children of school age in his district. Within the past few years his sphere of duties has been extended. He often conducts inquiries into the home conditions of children who are considered to be necessitous under the Education (Provision of Meals) Act, 1906, and has proved of great service in connection with the system of school medical inspection. Some authorities even employ school nurses as attendance officers, thus making still more intimate the connection between the school and the home. The cost of enforcing attendance is somewhat heavy. It ranges from a shilling to one shilling and tenpence per pupil per annum, but is economically advisable since the returns in the form of government grants more than compensate for the outlay upon the service.

IV. ELEMENTARY EDUCATION

While the distinction between schools for the masses and schools for the classes is far from being as sharply drawn in England as it is in Germany, nevertheless the English elementary school exhibits little of the democratic spirit observable in the common school of the United States and the public school of Canada. The son of a parent in the upper middle classes is never by any chance found sitting cheek by jowl with the labourer's son on the benches of the public elementary school. The labourer's son invariably begins his education in the free elementary school, although, in the later stages of it, he may, through the munificent provision of scholarships, pass through both the secondary school and the university. The son of a parent in the upper middle class just as invariably begins his education either at home under a tutor or, as is more frequently the case, in a private preparatory school, where he remains until he is old enough to be transferred to a secondary school.

The reason for this state of affairs can be found in the history of the elementary schools. When first provided they were designed to secure to the children of the poor an elementary training in the three R's and a knowledge of the scriptures. Even the monitorial schools of Bell and Lancaster, which sprang up in such large numbers at the beginning of the nineteenth century, had this same end in view. It is a matter of regret that the different types of religious education provided, in Bell's case according to the tenets and doctrines of the Church of England, in Lancaster's case according to the principles of nonconformity, eventually caused the religious question to dominate every other and led to a struggle for mastery which is still unsettled and, more than anything else, has prevented educational questions proper from receiving that calm consideration which their importance justifies.

Types of Schools.—Those who are acquainted with the uniform type of elementary school which is to be found in Germany, France, Canada, and the United States will be struck with the variety exhibited by the English system. Besides ordinary public elementary schools seven other types are recognised as elementary schools by the Board, namely, higher elementary schools, certified efficient schools, certified schools for blind children, certified schools for deaf children, certified schools for mentally defective children, certified schools for physically defective children, and certified boarding schools for epileptic children. But it is with the ordinary public elementary schools that this section will deal.

The ordinary public elementary school is divided into two main types: (1) provided or council schools, that is, elementary schools which are both provided and maintained by the local council; and (2) non-provided or voluntary schools, that is, elementary schools which are provided by some voluntary agency, but are maintained by the local council. The voluntary or non-provided schools are again divided according to the nature of the religious instruction given in them into five main groups, as may be seen from the following table:

Type of school.	Number.	Accommodation.
Ordinary public elementary schools:		
(*a*) *Provided schools*	8,510	4,239,724
(*b*) *Non-provided schools:*		
(1) Church of England schools	10,734	2,204,784
(2) Wesleyan schools	189	57,279
(3) Roman Catholic schools	1,091	388,213
(4) Jewish schools	12	9,863
(5) Undenominational voluntary schools .	417	90,186
Total non-provided . .	12,443	2,750,325
Total elementary schools . .	20,953	6,990,049

The balance of power, for reasons already stated, is gradually passing into the hands of the provided schools (undenominational with respect to the religious instruction given in them), and in this gradual change lies the brightest hope of a satisfactory solution of the religious difficulty. The Roman Catholics will, of course, always maintain separate schools, but there is no valid reason why all Protestants should not join forces.

Organisation.—The organisation within the schools themselves is also somewhat complex. Each school is divided into departments, one of which is ordinarily " for infants." The upper school subdivisions are naturally dependent upon the enrolment of pupils and the structural arrangements of the building, but those more commonly met with are represented schematically below:

I.	II.	III.	IV.
Infants (5–7) Mixed (8–14)	Infants (5–7) Boys (8–14) Girls (8–14)	Infants (5–7) Junior mixed (7–10) Senior mixed (11–14)	Infants (5–7) Junior mixed (7–10) Senior boys (11–14) Senior girls (11–14)

There is much discussion as to which form of organisation works best in practice. Each has its hearty supporters. Type IV. seems to give the best results, but it is only possible in large schools and in specially planned buildings. Type II. is recommended by the Board, while Type III. is condemned. In all the schemes the coordination of the work of the different departments is a matter of serious moment. Teachers in the upper departments are only too prone to throw the blame for bad work done by their pupils on the inefficiency of the teaching in the lower departments.

Each department is under a head-teacher, one of whom may be in charge of the whole school. In some schools organising principals with charge over all departments have been appointed. This is essentially the organisation found in American and Canadian schools. The system is said to work well, but meets with opposition from two sources: from the Board of Education which objects to large schools, and from the teachers who see in the arrangement but slender prospects of promotion.

The infants' department has either two or three classes; the remainder of the elementary school is organised on a basis of seven standards, with the addition in many cases of an extra standard known as the ex-seventh. In junior departments the scholars are taken up to standard II. or standard III., while the remaining four standards constitute the senior department. The normal rate of progress is for a scholar to complete a standard in a year, but there are many cases of retardation and acceleration. Head-teachers may promote children at their discretion, and it is not at all unusual for children to reach the seventh standard at eleven or twelve years of age. Various devices for overcoming "lock-step" promotion are to be found. Some schools have A and B classes, for bright and dull pupils respectively, while others arrange their work on a half-yearly plan.

Buildings and Playgrounds.—Europe is not so far advanced as the United States in the matter of school architecture. Nowhere can there be found such palatial school buildings as any American city of size can boast. Yet the European average is higher than the American. The reason for this lies in the fact that there are no dilapidated rural schools to mar an otherwise excellent record. This is especially true of England, where the one-teacher rural school is regarded as a curiosity and where the frame building is unknown.

The most striking feature of the English school is the large amount of space devoted to the playground which surrounds it. This and the details of architecture and furnishings of the school building are controlled by the Board of Education through the "Elementary School Code" and the "Building Regulations for Public Elementary Schools." The former states that in order to earn grants "the premises of the school must be healthy, safe in case of fire, must have suitable and sufficient sanitary and cloak-room accommodation for the scholars in attendance and for teachers, must be adequately lighted, warmed, ventilated, cleaned, and drained, must be kept in proper repair, and must be sufficient, convenient, and suitably arranged for the instruction of the children in attendance according to their age." The latter document goes into considerable detail as to the principles which are to be observed in planning and fitting up new school buildings. But the Board is careful to state that "the regulations are not a code of precise and definite rules with which compliance is required." Certain minimum requirements must be met before the plans are approved. For example, the minimum playground space for schools with less than 200 children is 2000 square feet, together with 10 square feet for each older child and 6 square feet for each younger child, while for those with 200 children and upwards the minimum is 20 square feet for each older child and 16 square feet for each younger child, but these minima are only sanctioned when satisfactory provision is otherwise made for organised outdoor games or when the school site, owing to its central position, is very expensive. But when minimum requirements have been met the school architect is free to experiment with various designs.

Formerly the Board advised local authorities to build classrooms round a central hall, and accordingly many schools were so planned, but the scheme is no longer approved, since it caused so many difficulties with regard to lighting and ventilation and conduction of sound. What is known as the verandah or pavilion type of school is meeting with much favour at present, and the general tendency is to erect schools of one story and spread them over a large area of ground. This type is not so expensive in regard to fuel as it would be in a country with a continental climate. In school planning, as in other departments of school activity, much valuable experimentation is being undertaken.

In English schools the ventilation is almost invariably by means of cross currents through open windows. The plenum and exhaust systems are absolutely unknown. The heating is by means of low-pressure water supplemented by an open fireplace in the front corner of the room away from the door. Steam heating is forbidden. The regulations state that rooms should be kept from 56° F. to 60° F. These low temperatures are possible because of the humidity of the air.

Curricula and Time-tables.—In the organisation of English education the individual school plays the part of an administrative unit more frequently than is the case in any other system. The reason for this is to be found in the very great freedom which is enjoyed by the head-teachers of schools. It is the head-teacher, for example, who frames the curriculum for his school, thus exercising a privilege which is only accorded to a city superintendent in the United States. The school and not the city or county system is the unit so far as the curriculum is concerned. There are theoretically as many curricula as there are schools; in practice, however, though there are wide variations, certain standard types may be recognised.

The Board states in its code of regulations for elementary schools that the syllabus of instruction must be selected from the following branches: English language, handwriting, arithmetic, drawing, observation lessons and nature study, geography, history, singing, hygiene and physical training, domestic subjects (for girls only), moral instruction, dairy work, handicraft, and gardening. It does not, however, demand that all the branches be included, rather the opposite, since the code specifically states that "it is not necessary that all the subjects should be taught in a school or class, and the curriculum as a whole may be varied when the Board is satisfied that its modification is required by the needs of the scholars or the circumstances of the school, or is justified for the purpose of experiment." In rural schools gardening is encouraged, while in town schools situated in the region of a specialised industry the curriculum is often varied to suit local needs.

Since, however, the head-teacher of the school frames his own syllabus and makes his own time-table, subject only to the veto of the government inspector for the district, the aptness of his choice is largely dependent upon his professional training, personality, and general alertness. An indolent master may carry on the work of his school well enough to satisfy the demands of the inspector, yet the spirit of his school will be essentially unprogressive. The master, keen on his work, has sufficient liberty to carry out the most radical of reforms. Hence it frequently happens that two contiguous schools may exhibit diametrically opposite characteristics, one radical in outlook, the other conservative, content simply to mark time. Educational ideas in England develop locally and spasmodically. That wonderful phenomenon of a whole city system visibly improving under the stimulus of a vigorous and enlightened superintendent, which is characteristic of American education, is never witnessed in England. The fact that there is no machinery for promoting a free interchange of ideas between teacher and teacher, school and school, coupled with the distaste the average teacher exhibits towards publishing his views in educational magazines, aggravates a serious situation. There are hundreds of well-conducted experiments in teaching being conducted in various parts of the country which never enjoy more than local fame. Some method of publicity, such, for example, as may be obtained through a publicity bureau, is badly needed in England.

With regard to the detailed work in the schools generalisations are unsafe, because the head-teacher may by his vigour and enthusiasm transform the spirit of the work in his school. In general, it may be said that the formal elements of education are very well taught. The pupils write legibly, compute quickly, and spell accurately, but they seem to have little facility in oral language, and the majority of the written compositions appear wooden and lacking in spontaneity. Reading is frequently limited to class readers, stories from history, and readings in geography. Literature, as such, is generally badly taught, as are also history and geography. Needlework is often confined to the execution of specimen work and the making of one garment a year; woodwork to exercises entailing the making of the various joints used in carpentry. Both these subjects could be improved by bringing them into closer touch with practical realities. Cookery, gardening, and nature study are, on the whole, well taught.

English schools excel in games and outdoor exercises. Pupils may be taken out to the city parks or playing fields for one-half day each week, there to participate in organised games. Both teachers and scholars eagerly avail themselves of this privilege. Swimming may also be included in the curriculum, and where baths are available, as in Manchester, Liverpool, Bradford, and other large cities, practically every pupil learns to swim during his elementary-school career.

In the infant schools, although drawing, clay modelling, free cutting, singing, and games occupy a large part of the school programme, far too much formal work in number and in language work is undertaken. The spirit of the kindergarten has not penetrated very deeply into English infant schools.

Grading and Promotion of Pupils.—The normal grading of elementary-school pupils is into seven classes or standards, and the normal rate of progress one standard per year. This somewhat mechanical method of grading by age rather than by attainments and of promotion by the lock-step method has been found wanting in practice, consequently many devices have been evolved to make the classification of pupils more scientific.

In all schools, since the passing of the Mental Deficiency and the Blind and Deaf Acts and the introduction of a compulsory system of medical inspection, the majority of children suffering from serious physical and mental defects have been removed from the ordinary schools and placed in schools or classes designed to meet their special needs. Provision for the remainder is being rapidly made. On the other hand, the very bright pupils have always received adequate attention. The innumerable scholarships providing free education through the secondary schools and thence through the universities have insured this. But the child of mediocre talents is still neglected, although his rights and needs appear to be increasingly recognised.

The methods in general use for overcoming the evils of lock-step promotion of practically all pupils at the end of the school year are as follows: first, the plan of promoting the brighter pupils twice in one year or giving them a double promotion (*i.e.*, skipping a standard) is possible in all schools. Where the schools are so large that each standard consists of two or more classes a second variation may be introduced, namely, that of A and B classes. The A classes consist of the brighter and the B classes of the duller pupils. Promotion is annual, but a far more ambitious programme is attempted with the A class pupils. A third scheme consists in semi-annual promotions when a far greater number of the brighter pupils receive promotion than is the case under the first scheme. This frequent reclassification does not seem to meet with general favour as the numerous changes of curricula and teachers consequent upon it are said to militate against the efficiency of the school. A fourth scheme which operates in London is designed to keep the various classrooms filled to capacity and has been characterised as the "structural system of promotion." A large number of pupils are promoted semi-annually, regard being had, of course, for the age and attainments of the pupils, but the distinguishing feature of the plan lies in the fact that the promotions correspond entirely with the number of vacant seats in the next higher grade. The method is economical but very unscientific, and therefore has been adversely criticised by all responsible educators.

The power of promoting (or degrading) pupils rests entirely with the head-teacher. No restrictions are imposed by the Board of Education as to the method of carrying these changes out, neither are any suggestions offered. Promotion is made on the basis of a final examination by the head-teacher, also terminal, quarterly, or monthly examinations by the same individual, and the reports of class teachers. Written examinations are given in the three R's, the rest of the subjects being tested orally. Ordinarily from 90 to 95 per cent. of all the pupils are promoted. The promotional examinations are also used as an agency of supervision by the head-teacher, and only too frequently remain the sole means for securing this important end.

As soon as the scholars reach the sixth or seventh standard a constant depletion of their number begins. Many of the scholars pass on to the secondary school, which is normally entered at ten to twelve years of age. The majority of the pupils, however, enter upon wage-earning occupations, since the English law permits part-time employment in certain cases at twelve, full-time at thirteen. The competitions for scholarships to secondary schools are restricted to pupils under twelve years of age; it is difficult even for fee-paying pupils to obtain entrance to a secondary school after thirteen. The result is that many pupils must reach standards VI. or VII., the standards of scholarship examinations, by the time they are eleven or twelve. This means frequent promotion for the brighter pupils, since they would not normally reach these standards before thirteen or fourteen. As a matter of fact, it is quite common to find pupils of eleven in the sixth standard.

This rapid promotion brings a serious evil in its train. The normal leaving age for elementary pupils is fourteen. Where a bright pupil, either through parental ignorance or cupidity, or through stress of circumstances, is forced to remain in the elementary school, it might easily follow that he repeats the work of an upper standard twice or even three times. The remedy is to be found either in broadening the work of the upper classes or in the transference of such pupils to pre-vocational schools of various types. Movements directed towards this end are now being inaugurated, but the provisions so far made fail by a large measure to satisfy the demands.

Size of Classes.—The size of classes the world over is determined by the accommodation of the room, the pupil enrolment, and the number of teachers employed in proportion to the school population. In England no classroom may now be built to accommodate more than sixty pupils, although in the near past rooms for eighty or ninety were frequently found. The Board's regulations state that a school of 100 pupils must possess at least two classrooms. Further regulations state that no teacher shall have a class exceeding sixty in enrolment. All teachers employed in public elementary schools must be "recognised" and each grade of teacher is regarded as the equivalent of a given number of pupils in average attendance. Thus a staff is considered sufficient if it measures up to the following scale:

Teacher.	Number of pupils in average attendance.
The head teacher	35
Each certificated assistant teacher	60
Each uncertificated assistant teacher	35
Each student teacher	20
Each supplementary teacher	20

An additional regulation states that there must be at least one certificated teacher for each eighty pupils in average attendance.

As a result of these staffing and building regulations, which are stringently enforced, the size of the classes has steadily diminished. In London a scheme of school provision has been arranged with the Board of Education which will ensure that by 1930 no classroom shall accommodate more than forty pupils. The average number of pupils per assistant teacher will then have dropped to thirty-five. Even this falls short of the thirty pupils per teacher demanded by Dr. Sadler as a first step in educational reform.

In 1914 for the whole country the average number of scholars on the register per teacher was 35.8; the average number of scholars in attendance per teacher was 31.8, the lowest in the history of the schools. The figures for urban areas are naturally larger than those for rural areas because of the larger proportion of sixty-pupil classes.

The Teaching Staff.—In Germany the proportion of male to female teachers is too high; in England and the United States too low. There are literally three women to every man in the teaching profession in England. The men teachers enjoy the better positions and on the whole are better qualified to fill them. There is a deep if silent antagonism between the sexes. Many local authorities have ruled that the marriage of a woman teacher is equivalent to her resignation. London, on the other hand, freely employs married women as teachers.

Before a local authority can appoint them, teachers must possess certain qualifications. For the higher positions the necessary qualifications are high; for the humbler positions they are regrettably low. The head-teacher must possess the three-fold qualification of certification, graduation from a training college, and two years' practical experience in the schools. The teachers' certificate can, however, be obtained without attendance at a training college, but this extra-mural type of certification is falling into desuetude. Lastly, there is a class of teachers in England who are a blot on the whole system. They are the supplementary teachers. Practically no professional qualifications are required for these posts. Any woman of eighteen years of age, of good physique and morals, may be appointed, providing the inspector is of opinion that she will show a capacity for teaching. They are restricted in their sphere of service, being allowed to teach only in infant departments and the lowest senior classes of small schools. No supplementary teachers will be recognised after 1919.

The appointment of elementary-school teachers is one of the functions of the local authority. The power may be delegated to the education committee, or to a sub-committee of the education committee, or to the managers of a school, but in such circumstances the appointment must be sanctioned and confirmed by the local authority. Vacancies in higher positions like head-teacherships are invariably thrown open to some form of public competition and are advertised in the public press. After careful sifting, a selected group of three candidates appears before the selection committee when the final choice is made. The lower positions are not so extensively advertised, but here also the procedure of public advertising and appointment is followed. Some committees give preference to their own teachers. Thus head-teacherships under the London County Council are restricted to men with ten years' experience in the London elementary schools. In addition, the appointments are reserved to those teachers who have been placed on a somewhat extensive list of eligible teachers. But the appointments are never automatic with seniority as the sole basis of promotion. The appointment of teachers to elementary schools practically rests in the hands of the managers, who in this indirect fashion control the religious observances of the teachers in their schools.

The tenure of teachers is almost too secure, for so long as a teacher remains reasonably efficient, and conducts himself properly, it is practically impossible for him to be dismissed. Nor can a teacher be restrained from taking part in any occupations outside of school hours which do not interfere with the due performance of his duties as teacher of a public elementary school.

The salaries of elementary-school teachers are still very unsatisfactory in amount. They are usually fixed by scales which are operative throughout a given local area. Cities pay larger salaries than county areas; London and neighbouring areas pay higher salaries than other parts of the country. There is a differentiation between the sexes. Men are paid about one-third more than women. The following table gives the salient facts regarding salaries:

Salaries of Elementary Teachers, 1912

Class of teacher.	Average salary.	Modal salary	Percentage reaching lower limit of modal salary.
A. Certificated:	£	£	
1. Headmasters	177	130–140	78.72
2. Headmistresses	124	100–110	71.55
3. Assistant masters	128	100–120	79.34
4. Assistant mistresses	93.5	90–100	57.70
B. Uncertificated:			
1. Headmasters	91.4	80– 90	75.00
2. Headmistresses	68.0	65– 75	70.16
3. Assistant masters	66.4	60– 75	78.69
4. Assistant mistresses	55.4	60– 65	44.06

Salary scales work fairly on the whole, although they have the serious drawback of preventing merit from receiving its adequate reward. The introduction of the American practice of fearlessly promoting the vigorous young man would be of undoubted benefit to English education. At present it is just as difficult to accelerate the promotion of promising teachers as it is to prevent the increase of salaries of time-serving mediocrities.

At the age of sixty-five years, or earlier in case of disability, the English elementary teacher, *if certificated*, is entitled to a pension. The pension scheme, within its limits, is fairly sound inasmuch as it (*a*) is universal in its operation among certificated teachers (uncertificated teachers are beyond its purview); (*b*) provides for periodical actuarial investigations; (*c*) permits free circulation of teachers; (*d*) protects the thriftless teacher against himself, in that it reserves the benefits intended for old age until old age is reached; (*e*) is partially contributory; (*f*) makes provision for disability.

There are three distinct parts to the scheme: (*a*) the *annuity*, which is wholly financed by contributions from the teachers; (*b*) the *superannuation allowance*, which is the state's contribution to the scheme; and (*c*) the *disablement allowance*, which is designed to meet the case of the teacher who, before reaching the age of sixty-five, has become permanently incapable, owing to infirmity of mind or body, of continuing his services in the schools.

The annuity is provided from interest on the deferred annuity fund. The amount contributed to the fund by teachers is compulsory and fixed in amount, namely, £3 6s. annually for a man, and £2 4s. annually for a woman. These amounts are in the first place deducted by the Board from the grants earned by the local authorities, and then in turn by the local authorities from the teachers' salaries. The amount of annuity a teacher receives on retirement is fixed by annuity tables, and by the number of contributions he has made to the annuity fund, no matter how few or broken those contributions may have been. The tables are subject to revision; septennial valuations show whether the interest derived from the fund and the mortality of teachers justify the rate of payments indicated by the tables. In no case can the money be drawn before the age of sixty-five is reached or obtained in a lump sum by the teacher or his relations. The annuity ceases at death without further compensation to his estate, nor does the estate receive anything if he dies before reaching sixty-five; his contributions simply go to swell the deferred annuity fund. The maximum annuities obtainable are £35.45 for men; £18.63 for women.

The superannuation allowance is the contribution made by the state in the form of a life annuity towards the total pension granted to teachers. It is only paid to teachers who have contributed to the deferred annuity fund at least half the number of years they have been certificated. Continuous service is not an essential. The rate of payment is the same for both men and women—£1 for each year of recorded service. Normally a teacher on reaching sixty-five years may expect £40 superannuation allowance for the forty years of service. Full annuities cannot be received till 1939, when the scheme will have been in operation forty years. The Board has, therefore, augmented the superannuation allowances of all teachers who recorded service prior to 1899. The superannuation allowances are not provided out of any invested funds, but as they fall due by vote of Parliament upon the estimates of the Board of Education.

The disablement allowance has certain conditions attached to it. The teacher must have served at least ten years of recorded service before becoming entitled to it and also one-half the years which have elapsed since he became certificated. The amount of disablement allowance is calculated upon the length of service and at the following rate:

(1) *For men:* £20 for the minimum ten years of recorded service, with the addition of £1 5s. 0d. for each extra year of service.

(2) *For women:* £15 for the minimum 10 years, with £1 added for each extra year.

Certain other regulations governing the disablement allowance are designed to prevent malingering, to provide for triennial medical examination and reconsideration, to prevent married women from receiving it, etc. The disablement allowances are granted by the Treasury out of moneys provided by Parliament on the estimates of the Board of Education.

This national pension scheme, while excellent in many ways, is obviously unable to provide sufficient funds to care for teachers adequately in old age. Consequently many local authorities—London, Birmingham, Liverpool, Manchester, Bradford, Newcastle, Croydon, Halifax, Bootle, Derby, etc.—have established local systems of pensions to supplement the national provision. These local schemes vary so much with regard to detail that it is impossible to describe them within the limits of this section. All, it may be said, are contributory, all are supplemented by contributions from the corporation, and all are planned so that a teacher leaving the local service loses everything that has accrued to him except the amount of his own contributions. This latter feature discourages free movement of teachers from place to place and is provincial rather than national in spirit. These local systems, however, will continue to flourish until government makes more adequate provision for teachers through the national pension system.

School Attendance Laws.—With the exceptions mentioned below every child in England who is physically and mentally fit is compelled to attend school between the ages of five and fourteen years. Children may be educated at home if the parents can prove to the satisfaction of the education committee that they are receiving an adequate education under skilful tutors. Every school in order to receive recognition for the earning of government grants must be in session 400 half-days per year. Each session must be of two hours' duration at least. As a matter of fact, most schools are open each year for 42 weeks (420 half-sessions), each week for 5 days, and each day for 5½ hours. Thus normally each child attends the elementary school for 210 days for each of nine years. The attendance of children from three to five years of age is also permitted, although discouraged by both central and local authorities. When the high average attendance (88 to 90 per cent.) is taken into account, it will easily be seen that English children spend a good deal of time in school; whether or not commensurate educational results are obtained is another matter.

A widespread system of part-time attendance spoils this rosy picture. The industrial revolution in England created a demand for child labour and no government has been powerful or enlightened enough to abolish it altogether. Compulsory attendance of children at school found its humble beginnings in the educational clauses of the Factory Acts of 1833 and 1844, which required children to attend school half the day on so many days per week. Half-time attendance at school was thus inaugurated as a sort of compromise, and half-time attendance under certain conditions is still possible and lawful. The first Elementary Education Act, 1870, firmly established the system of half-time employment with half-time attendance at school. Under this act partial relief from compulsory attendance at school was granted to children between the ages of ten and thirteen who had reached a certain standard of education. Although subsequent Education Acts (1876, 1880, 1893, 1899) have modified the conditions for exemption, the system of to-day is practically the same as that of 1870. Exemption may still be obtained by passing a "labour examination," varying in difficulty from that of standard III. to that of standard VI., while since 1899, 300 attendances (morning or afternoon sessions) for each of five preceding years, not necessarily consecutive, have also sufficed for half-time exemption between twelve and fourteen years, and 350 attendances for full-time exemption between thirteen and fourteen.

As, however, school attendance bylaws within the limits of the acts are made by each local authority, only obscurantist authorities allow scholars to obtain exemption before fourteen. Unfortunately, the textile counties of Lancashire and Yorkshire demand child labour in the factories and consequently the standards of exemption there are low. Four half-timers out of every five are found in the factory districts of Lancashire and Yorkshire.

In 1914, 71,437 half-timers were on the registers at some time or other; at the end of the year 35,679 were so registered. Where standards for half-time attendance are low advantage is also taken of the regulation which permits full-time exemption at thirteen. Hence few children in the textile towns permitting half-time receive elementary education to the full fourteen years of age.

The half-timer introduces many problems into school organisation and administration. He is difficult to fit in with other children because he receives only half the lessons. Lessons must either be duplicated for him, causing the others to mark time, or he must be neglected and allowed to fall hopelessly behind them. Attempts to segregate half-timers have also proved futile, as the improvement in the organisation of the curriculum has been more than counter-balanced by losses in other directions. There are certain moral and physical dangers connected with half-time employment. The half-timer, through early associations with adults in unsupervised factory life, learns "mannish" ways without developing manly control, with the result that he tends to become a nuisance in the home, the school, and the street. The strenuousness of modern industrial life also leaves its mark upon him, all the physical measurements that have been made show him to be the inferior of his school-fellows in height and weight.

Yet many arguments are urged in support of the system. It is said that the half-timer receives a good technical training in the work-shop, that the requisite dexterity of fingers can only be gained at the early age of twelve or thirteen, and that it is good to develop early a spirit of independence. On the other hand, it is pointed out that instruction is given in haphazard fashion by any operative who happens to be his master or mistress for the time being, that the finger dexterity can be acquired equally well at fifteen or sixteen, that the wages earned (2s. 0d. to 5s. 0d. a week) are seldom of absolute necessity to his family, and that the employment kills off any latent desire on the part of the half-timer to continue his education at evening or technical classes. It must be acknowledged, however, that the system is extremely popular with the half-timers themselves. They, as wage-earners, enjoy more independence and liberty at home, and have also a certain amount of pocket-money to spend.

The system, which is opposed by the best elements in English life, is continued mainly by the inertia of custom, but is also fostered by the greed of non-thinking parents. An interdepartmental committee formed to inquire into the question of Partial Exemption from School Attendance reported, in 1909, in favour of its abolition. Its disappearance will mark a great step forward in the recognition of the indubitable right of children to childhood, and elementary education will improve enormously when all children attend school as full-timers.

Vocational Guidance.—It is becoming increasingly recognised in educational and other circles that to educate boys and girls to fourteen years of age and then to cast them adrift to sink or swim in the industrial maelstrom is not only foolish and uneconomical but positively wicked. Children so neglected drift helplessly into "blind-alley occupations" and find themselves at eighteen years of age either enrolled among the unemployed or condemned for life to labour in unskilled, poorly paid employments. Well-meaning voluntary agencies tried valiantly, though spasmodically, to grapple with the problem, but with little success. The task was too big for them. It needed more concentrated and protracted effort than they were able to put forth. Obviously some national agency must be created which could deal with the problem in a big way.

England's first effort arose out of an extension of the scheme which established labour exchanges for adults in 1909. The Board of Trade, which was charged with the control of these exchanges, organised a juvenile branch of their work in 1910. In the same year the Education (Choice of Employment) Act was passed which empowered the larger local authorities for education, county and county borough councils, "to give boys and girls information, advice, and assistance with respect to employment," and to levy rates to pay for the same. Thus two systems of labour bureaux were established. Those under the Board of Trade are managed by advisory committees, consisting of persons with a knowledge of education and young people, and representatives of employers and workpeople. The chairman is appointed directly by the Board of Trade. Those under the Board of Education, which are not to be established in areas already preempted by the Board of Trade exchanges, are managed by committees consisting of representatives of industry and education, including teachers, and voluntary workers. Obviously the latter scheme is the preferable one, since it utilises the knowledge of the capacities of individual children gained by teachers and school medical officers through a long series of years.

The duty of these juvenile employment committees and their executive officers includes the registration of applicants, giving advice to applicants regarding the demand for workers in different occupations, efforts to induce pupils leaving school to continue their education at evening classes, publicity campaigns to make pupils familiar with local education facilities, and efforts to secure employment suitable to the individual needs of the applicants, not necessarily offering large wages, but holding out prospects of training, promotion, and permanent employment. The exchanges under the education committees use each school as a sub-office, and through the head-teachers distribute various forms of leaflets dealing with education and industry to all pupils as they approach the school-leaving age. Each leaver is also automatically registered. Consultations between the executive officers of the exchange and the pupil and his parents are also arranged. London and other centres have issued pamphlets of the kind "Trades for Boys," "Trades for Girls," etc., which have met with a very friendly reception in the homes. It is too soon to say what influence the schools will ultimately have on the choice of employment of its graduating pupils, or what will be the reflex effect on the schools themselves, but there is no doubt that the establishment of juvenile labour exchanges is a step in the right direction.

Higher Elementary and Central Schools.—In every country with a highly developed system of education there seems to be a general leaving age of fifteen for pupils who can continue their education beyond the minimum provided by the elementary school. There are also a large number of elementary scholars who progress rapidly through the standards or grades and because they cannot, from one cause or another, proceed to a secondary school are forced to mark time during the later years of school life. If efforts are made to provide "advanced tops" to the elementary schools these scholars can usually be induced to stay until they are fifteen or even sixteen years of age.

According to the English idea, secondary education is a special schooling which commences before twelve years of age is reached, preferably at ten, and continues beyond sixteen. For the classes of pupils described above it is obvious that some school or form of education intermediate between ordinary elementary and secondary schools is urgently needed.

England began to solve this problem by introducing modern language, science, and mathematical courses into the higher classes of picked elementary schools. Mr. Cockerton, an auditor of the Local Government Board, refused to sanction expenditures for such subjects in London schools, on the ground that they were illegal, as no act provided for them, and when the case was tested in court, judgment (the famous Cockerton judgment) went in his favour. The Board of Education found a way out of the impasse by framing a Higher Elementary Minute (1901) which later was incorporated into the elementary-school code.

Higher elementary schools are designed to provide an advanced higher elementary education for pupils from twelve to fifteen years of age. In certain special cases a fourth-year course is permitted. The curriculum must include a progressive course of study in English language and literature, in elementary mathematics, in history and geography, and provision must be made for special instruction bearing on the future occupations of the scholars, whether boys or girls. But the schools have never been popular and are now actually on the decline, owing to the fact that local authorities have found it difficult to conform to the regulations regarding accommodation and staff necessary to earn the special grants. While professing to meet the demand for industrial and commercial education many higher elementary schools as established could hardly be distinguished in aim or methods from junior and somewhat inefficient secondary schools.

Certain sturdy and independent education committees, like London and Manchester, decided, in 1910, to solve the problem in their own way. They refused the government grants for higher elementary schools, reducing them for grant-earning purposes to the level of ordinary elementary schools. A more elastic curriculum was provided which met local industrial needs and the title was changed to central schools.

The curricula of central schools have a commercial or industrial bias, or both, depending upon the character of the district in which they are situated. The commercial course seems to be the more favoured, probably because the graduates can immediately enter commercial houses without further preparation. In this course the branches studied include a foreign language (generally French, though Spanish would be far more useful), science, including laboratory work, drawing, handicraft for boys, housecraft for girls, shorthand, bookkeeping, typewriting, English, history, geography, mathematics, singing, and physical exercises. In general the pupils are not specifically trained to be clerks or stenographers for fear of exploitation by the commercial world, but underlying principles are taught which have wide application in commerce and transportation. The content of the subjects is modified to suit the probable vocations of the pupils, and the practical side of the studies, especially in mathematics, drawing, and the foreign language, is emphasised.

The industrial course is less well defined, and much experimentation is taking place. There is great danger on the one hand of overlapping with the various trade schools and on the other with the traditional apprenticeship system. Vocational skill is not aimed at, but the development of industrial intelligence is kept ever to the fore. The curricula vary. In general it may be said that practical work in science, drawing, clay-modelling, woodwork, and metal work forms the basis for boys, and science, domestic economy, drawing, and needlework for girls. The modern language usually finds no place. The history, geography, and other general subjects are the same as in the commercial courses, but are usually approached from a different angle. The history and organisation of industries and the influence of inventions, for example, invariably form part of the history course.

The teachers are of higher standing than the average of ordinary elementary schools. They are usually certificated and many of them are holders of degrees. Some central school staffs are little inferior to those of good secondary schools and are more skilful in the art of teaching.

Central schools draw on neighbouring elementary schools for their pupils. They are too recent in origin to be able to cover the whole of an urban area and consequently the facilities afforded by them are denied to pupils living in districts remote from the central school. But they have come to stay. London has plans for sixty of them, Manchester for six, and other centres are following their example. Whether or not they will fulfil the aim their establishment was intended to subserve, only time can tell. At present all that can be said is that the experiment is a promising one.

Finance of Elementary Education.—According to the principles of educational finance, the distribution of moneys for education should aim to secure (*a*) the regular attendance of scholars at school; (*b*) adequate and properly trained staffs; (*c*) an equitable distribution of the financial burden; and (*d*) the steady improvement through local efforts of education as a whole.

English educational finance at the present time is in a chaotic state. There is no agreement as to the burdens which should respectively be borne by the central and the local authorities. Grants instituted to meet special needs have been continued long after their original purpose has been served. No grants are given directly to improve the standards of the teaching staffs. Practically ninety per cent. of all government moneys are distributed on the basis of average attendance of scholars. In a word, the problem of educational finance has never been squarely faced. Radical reorganisation is urgently needed.[1]

The financing of public elementary education in England is the joint undertaking of the central and local authorities. Although the two burdens fall ultimately on the same shoulders, the taxpayers', there is great controversy as to the proportion which each authority should bear. Since it is impossible to distinguish between the national and local benefits of education, it is equally impossible to apportion the shares of the cost. Yet, theoretically at least, a distinction can be made. The expenditure for purposes mainly national, which economists have aptly termed onerous expenditure, should provide a national minimum of education. But something more is needed. Progressive communities must be allowed to provide a more enlightened education if they so desire, and even conservative districts should be expected to exhibit some pride in their schools. These ends are best secured by local expenditure over and above the national minimum. In the terms of economics there must be beneficial as well as onerous expenditure, although in practice it is sometimes difficult to distinguish one kind from the other.

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[1] Fisher's financial reforms make some of these criticisms invalid.

The problem of educational finance is to secure national supervision and standards while promoting at the same time local interest, freedom, initiative, and autonomy. England's main contribution to the solution of this problem is valuable. It is known as the grant-in-aid, and shows at its best the practical genius of the British people. This grant is made to the local authority on condition that certain standards are maintained. That such standards are kept is determined by a system of national inspection and audit. It is left to the local authorities to accept or refuse the grant, and it was seen in connection with higher elementary schools that both London and Manchester refused the grant rather than be hampered by the severe restrictions which accompanied it.

The cost of education is rising rapidly and shows no sign of reaching a limit. The Board of Education as the central authority is ever trying to key local education to a higher pitch of excellence, but seems unwilling to give grants-in-aid which local authorities deem proportionate to the demands made upon them. The consequence is that the local burden grows more rapidly than the national. In two decades the local proportion has grown from twenty-five to fifty per cent. of the whole. As the national government can collect money more easily than the local authorities, the latter are insistent in their demands for larger grants. There is a peculiar psychology in this. In some subtle way the local authorities feel that what comes from the government is, as it were, something for nothing, and the larger grants they can obtain the bigger the share of the spoils they think they are getting.

The government grants for education are made from the Consolidated Fund which was created by William Pitt in the year 1787. Into this fund, which is deposited in the Bank of England and the Bank of Ireland, are paid all moneys collected by the revenue officers of the United Kingdom. The fund is used by the government much in the same way as a private banking account is used by an individual. The amount to be drawn from the Consolidated Fund for the purposes of education is determined by Parliament at the time of the presentation of the budget. In 1912–13 the amount so voted for England and Wales was £14,339,318, distributed as shown in the table given on page 195.

The local expenditure can best be studied from the examination of a number of balance sheets issued by the local education authorities. On the income side all or the greater number of the following items will be discovered:

1. Local rates.
2. Annual grant (less superannuation).
3. Fee grant.
4. Aid grant.
5. Agricultural rates (under Agricultural Rates Act).
6. Small population grant.
7. Special aid grant.
8. Special subjects grant.
9. Grants for medical inspection and treatment.
10. Grants for provision of meals.
11. Grants for blind and deaf, and epileptics.
12. Superannuation contributions of teachers.
13. Local endowments.
14. School fees.
15. Contributions from parents of blind and deaf, and epileptics.
16. Other receipts: sale of needlework, rent of rooms, etc.

Local rates provide on the average about fifty per cent. of the income, although in London it reaches the seventy-five per cent. level. Almost the whole of the remainder is provided by the annual grant, fee grant, and aid grant.

The *annual grant* is based upon the average attendance of scholars in public elementary schools. For each unit the rate per annum is 13s. 4d. for scholars under five years of age; 21s. 4d. for scholars over five.

The *fee grant* was made when fees were abolished and elementary education made free. It also is based on average attendance and amounts to 10s. per pupil per annum.

The *aid grant* is based on the average attendance of scholars, but is devised to give relatively greater amounts to areas of low rateable value. The formula for its distribution may be said to be

$$3s.\ 4d.\ \left(10s.\ \text{minus}\ \frac{\text{the produce of a penny rate}}{\text{number of children in average attendance}}\right).$$

The other sources of income are relatively insignificant and will not be further detailed.

The expenditure falls under five main heads: (1) *loan-charges*, that is the annual charges for interest on, and repayment of loans raised for, the provision of school buildings, playgrounds, furniture, apparatus, and other equipment. They amount on the average to twelve per cent. of the total expenditure on elementary education; (2) *teachers' salaries*. This is the main expenditure of local authorities. It amounts to 64.5 per cent. of the whole, thus falling short by ten per cent. of the proportion which is considered to be correct by many American educators; (3) *other expenses of maintenance*, which amount to sixteen per cent. of the total expenditure; (4) *school medical service*, an expenditure which is rising very rapidly and now absorbs three per cent. of the total money expended on elementary education; (5) *administration* and other expenses, which amount to 6.4 per cent. There is no doubt these could be materially reduced without lowering the efficiency of education as a whole.

From the foregoing account enough will have been gathered to show the urgency of reform. A departmental committee appointed by Parliament has investigated the problem and presented its report. The report recommends largely increased contributions from government towards the expenses of local authorities and a thorough recasting of the system of the grants for elementary education. It is recommended that the annual, fee, and aid grants, the grants for cookery, laundry, handicraft, etc., the grants to schools for blind, deaf, and epileptic children, and the special grant of £350,000 to necessitous areas be abolished, and that for these grants a block grant of 36s. 0d. per child in average attendance, plus two-fifths of the total net expenditure, less the produce of a 7d. rate be substituted.

While these proposed reforms undoubtedly mark a great advance on the existing system of grants they suffer from two serious drawbacks. The grants are based on expenditure, no matter for what the expenditure is made, whether beneficial or otherwise. Secondly, there is only indirect encouragement for local authorities to secure competent teachers and wholesome, hygienic school buildings. There should therefore be instituted some check on possible wasteful expenditures, and positive encouragement of beneficial expenditures, even if they are costly, should certainly be given.

V. TRAINING OF ELEMENTARY TEACHERS

Teacher-training naturally divides itself into two parts—the academic preparation and the subsequent professional training. Since modern times more and more emphasis is being placed on the soundness of the academic preparation, it is not unusual to find elementary teachers possessed of a university degree. The professional training is also changing its character. Apprenticeship copied from the industrial world, with imitation as its method, is giving way to the laboratory method of training, where the psychological principles taught in the normal school are made both vital and real in the demonstration and practising schools which are attached to it.

These two trends are admirably illustrated in the development of teacher-training in England. When first introduced at the beginning of the nineteenth century by Lancaster and Bell, the training consisted in giving monitors, as they were called, a little instruction in subjects and methods which they immediately put to service in the classroom. The underlying psychology was fundamentally false. Education, according to these leaders, consisted in pouring information from one person into another. Anybody, therefore, with a slightly superior stock of information could teach. No attempt was made to encourage the monitors, mostly younger than fifteen years of age, to look forward to teaching as a career, and soon the system proved quite inadequate.

The next forward step was the introduction of the pupil-teacher system to replace the discredited monitorial system. But the defects remained, although in a much less exaggerated form. The central idea of pupil-teachership, which has persisted from 1840 to the present day, and has therefore exerted a profound influence on English education, was apprenticeship to a master for a period of years. The master of a school selected from among the older boys one who showed promise of making a good teacher. This boy was indentured for five years and learned the art of teaching from observation and faithful imitation of his mentor. He got very little salary, but to offset this he received free tuition from his master, either in the evening or early morning before school.

At the conclusion of his apprenticeship he frequently passed on to a training college (normal school) and remained there for two years. This system was so well established by 1846 that the government felt themselves justified in supporting it by grants both to the pupil-teachers themselves and to their masters. Scholarships were also provided for pupil-teachers during their period of attendance at a training college.

Pupil-teachership still survives. The pupil-teachers are no longer indentured to a master, but to an education committee. The period of apprenticeship has been reduced, step by step, from five to two years (except in rural districts where it may still be four years), while the age of entrance has been gradually raised from thirteen to sixteen years.

No doubt the system of pupil-teachership was intended as a makeshift to be abolished as soon as a sufficient supply of teachers became available. But the system persisted in spite of its obvious limitations. No person in the most receptive period of his life could combine salaried employment and education without disastrous results to the latter. The chief drawback, however, was in the tuition the candidates received. The masters under whom they served were for the most part badly educated; they lacked the broad outlook of the scholar. And so a vicious circle was established. Matthew Arnold in his report for 1852 felt constrained to remark upon "the utter disproportion between the great amount of positive information and the low degree of mental culture and intelligence they (the pupil-teachers) exhibit."

To remedy this unsatisfactory state of affairs "centre classes" were established in 1874 where the pupil-teachers from a local area were collected and instructed. The movement spread rapidly and pupil-teachers spent a decreasing amount of their time in teaching and an increasing amount in securing a wider academic training. Out of these centre classes "pupil-teacher centres" developed in the last nineties. But newer ideals of training were abroad and the whole system of pupil-teachership was regarded with suspicion by the Education Department. This attitude received strong encouragement from a minority report of the Cross Commission, 1888, and from a departmental committee which studied the question between 1896 and 1898. The latter reported: "We think it extremely desirable that all intending teachers should pass through a secondary school for the completion of their ordinary education. . . . The preparation of young teachers can and ought to approximate more closely to the liberal methods and studies which would help to bring them to the same level as the best scholars of secondary schools." This committee also looked forward to the time when the centres would be converted into well-staffed and properly equipped secondary schools "where, although perhaps intending teachers may be in the majority, they will have ampler time for their studies and will be instructed side by side with pupils who have other careers in view."

Subsequent legislation has been designed to carry out these proposals. In 1903 regulations were issued which secured for the pupil-teacher a secondary education to sixteen years of age. Since 1905 the system of preliminary training of teachers approved by the Board of Education has been that known as the bursar and student-teacher system. The bursar continues his secondary education from sixteen to seventeen years of age by aid of a bursary grant. At seventeen he becomes a student-teacher and attends an elementary school for one year in order to get an insight into the practical working of a school and some practice in the art of teaching.

Both systems, the pupil-teacher system and the bursar-student-teacher system, are in operation at the pesent time. In general, the pupil-teacher system operates only in rural districts; urban centres provide themselves with teachers exclusively by the newer plan of bursars and student-teachers.

Preliminary Training of Teachers.—The training which a candidate for the teaching profession receives prior to entry into a training college is technically known as the preliminary training. The education given to pupil-teachers, bursars, and student-teachers falls therefore under this head.

Pupil-teachers.—Pupil-teachers, as we have seen, are boys and girls who are receiving training in teaching in an elementary school together with some approved instruction in elementary subjects. Before selection they must be certified to be healthy, of good character, and free from personal defects. The professional training is given by the head-teacher of the school to which they are attached and consists of teaching, observation of teaching, and study of school management. No professional training is given in the first of the two years of the course and in the second (seventeen to eighteen years) not more than one-half the time may be so employed. The academic training may be given by a head-teacher (in rural schools), in a pupil-teacher centre, or jointly by the head-teacher and the teachers of central classes. The aim is to give a sound secondary education, consequently individual instruction by the head-teacher is only recognised when no centre is available. At the end of apprenticeship pupil-teachers sit for an examination, success in which entitles them to enter a training college. The whole system of pupil-teacher training is encouraged by a number of government grants which are sufficiently generous to cover the whole of the cost.

Bursars.—Bursars are intending teachers who receive bursaries to cover the cost of an additional year of secondary education between sixteen and seventeen years of age. Their training, therefore, unlike that of pupil-teachers, is entirely academic. They cannot be distinguished from the ordinary pupils having other careers in view. At the end of their year of recognition bursars pass one of the many examinations qualifying for entrance to a training college. They may then pass directly into a training college from the secondary school, or they may, as they usually do, become student-teachers. Maintenance and travelling allowances, as well as free tuition, are provided by government grants.

Student-teachers.—The aim of the student-teacher year of training, which normally follows a bursar year, but may follow a completed course of secondary education, is to provide an opportunity for getting a practical acquaintance with the working of a school. Not all the student-teachers' time is employed in teaching or in observation of teaching; the local education authority employing them must provide facilities whereby their general education is continued so far as circumstances permit. They may be recognised as a component part of the teaching staff of an elementary school, in each case counting, according to the Board's scale, for a maximum of twenty children in average attendance. The more progressive local authorities do not avail themselves of this permission. At the end of the year of service they may either enter a training college for further professional preparation, or they may continue to teach in the capacity of an uncertificated teacher. No grants are paid by the Board on their account, but they usually receive a low rate of remuneration from the local authority employing them.

Training Colleges.—The name given in England to the institution designed "for giving instruction in the principles and practice of teaching to persons who are preparing to become certificated teachers in public elementary schools, and for supplementing their education so far as may be necessary" is that of training college, not normal school. The teacher who completes the course of the institution satisfactorily is known as a *trained* certificated teacher and is thereby distinguished from other certificated teachers who obtain their qualifications by the passing of an extra-mural examination.

Training colleges when first established in England about 1840 were voluntary institutions organised and controlled by religious denominations. As they were invariably residential, something of the atmosphere of the cloister crept into them. With the growth of the virile provincial universities in the latter half of the century a demand arose for the extension of the facilities for university education to the elementary teacher. The Cross Commission in 1888 recommended the introduction of day-training colleges attached to some university or college of university rank. The code of 1890 carried out the suggestion, since when day-training colleges have multiplied rapidly. A further extension of the day-student principle was made in 1906, when government decided to aid with substantial grants any local authority desirous of establishing a training college. In recent years the Board has encouraged the erection of hostels in connection with day-training colleges, but the main point to notice in recent movements is the gradual emancipation of the training college from the dominating control of religious bodies. Considerably more than one-half the prospective teachers are now trained in non-denominational institutions.

Training colleges are classified in various ways, the most usual being that of "residential" and "day-training" colleges. Other classifications recognised in the statistics of the Board are: (*a*) according to the sex of the students—men's, women's, and co-educational training colleges; and (*b*) according to the authority providing the institution—university, council, and voluntary training colleges. In 1914 England and Wales possessed the following training institutions:

Type of training college.	Number.	Accommodation for			
		Resident students.	Hostel students.	Day students.	Total.
For men only .	21	1,617	—	727	2,344
For women only .	43	4,157	429	1,528	6,114
For men and women	23	—	1,931	2,704	4,635
Total . .	87	5,774	2,360	4,959	13,093

The training colleges are well distributed. They are usually pleasantly situated in extensive grounds, and ample provision is made for the development of corporate life among the student body.

Each training college must have a governing body responsible to the Board for the framing and submission of courses of study where the syllabuses contained in the Board's regulations are not followed, for the supervision of lodgings occupied by day students, for the general discipline and moral supervision of all students not resident in hostels, and for the general direction of the college. In day-training colleges, which are integral parts of universities, the senate or council is usually the governing body; denominational colleges are usually governed by denominational (clerical) councils; while the city or council colleges are managed by special committees of the local councils. Since the governing committee is essentially a lay or non-professional body, the professional aspects of its work are frequently delegated to the principal of the college, the governing council merely reserving to itself certain supervisory rights.

The teaching staffs of training colleges are usually well qualified. Each college must have a principal who holds an honours degree of a British university. The staff as a whole must, to the extent of two-thirds their number, be university graduates. Each staff must be competent to give instruction in education, English language and literature, history, geography, mathematics, and science. The sanction of the Board is required before an appointment is confirmed, and the number, qualifications, salaries, and hours of duties of the staff must also be approved by the Board. The teachers comprising a training-college staff are generally called lecturers, although such titles as tutor, governess, and demonstrator can also be found. One person is designated the master (or mistress) of method, and to him is delegated much of the professional work, such as the lectures on general and special method and the supervision of the practice teaching of the students.

Elementary teachers in England are recruited from the ranks of better-class artisans, retail traders, and the minor professions. Few are drawn from the farm, as they are, in preponderant numbers, in North America. The students in colleges belong to the "rising" classes and exhibit the best characteristics of persons with a healthy ambition. Since the removal of the restriction which bound them for life to elementary schools (they may now serve in a secondary school or in any other state-aided educational institution) the quality of the candidates for the profession has greatly improved. This improvement is especially noticeable in the students who attend the three and four year courses in universities and university colleges.

The entrance requirements demanded of training students are four in number: (1) success in the preliminary examination for the teachers' certificate, or in one of its eighteen recognised equivalents; (2) production of a satisfactory certificate of health; (3) the signing of a legal undertaking to teach for a given term of years, seven in the case of a man, five for a woman, and failing such service to repay to the Board such proportionate part of the cost of training as is represented by the uncompleted years of service; (4) the attainment of a minimum age of eighteen, which in certain special cases may be reduced by the Board to seventeen years.

The course of study pursued by a student is determined by the length of his period of training. Training colleges attached to a university provide either a three or four years' course; residential colleges a two years' course only. Four students out of five take only the two years' course of training.

(*a*) *Two-year Students.*—The subjects of the curriculum are divided into the three groups indicated below:

General Subjects	*Professional Subjects*
English	Principles and practice of teaching
History	Hygiene and physical training
Geography	Theory of music and singing
Mathematics	Reading and recitation
Elementary science	Drawing
	Needlework (for women)

Additional Subjects

French
German
Latin
Physics
Chemistry
Botany
Rural science
Housecraft

The general subjects are studied with a view both to the students' professional training and to the continuance of their general education; the professional subjects with the sole aim in view of professional training. The additional subjects are only sanctioned by the Board when, in its opinion, both the equipment and the staff of the college are adequate for the purpose.

The subjects enumerated above are far too many for any one person to study with advantage. Drawing and needlework may be omitted by all students who are proficient in them on entering college, and music by those unable to profit by practical instruction in it. Otherwise, all professional subjects must be included in the course of study and at least three of the general subjects, one of which must be English. Specially gifted students may substitute two of the additional subjects for one of the general subjects.

A very large number of courses are thus possible. The underlying idea in the arrangement is the suiting of the curriculum to the capacities of the students. Practically no talent need remain latent, while exemptions are freely granted to students in subjects where a reasonable efficiency has been reached and no further desire to specialise is expressed. But it is in the syllabuses of the individual subjects that the ideas of liberty and individual initiative are most fully exemplified. In history, for example, the Board offers four alternative ordinary and four alternative advanced courses, making eight in all. In each of geography and mathematics two ordinary and two advanced courses are provided. In some subjects, *e.g.* in elementary science, no syllabus is outlined, while in French, German, Latin no set books are required. Moreover, these syllabuses need not be accepted; if the staff of a training college can produce better ones they are encouraged to do so. This treatment is in marked contrast to the rigidity of German normal-school curricula and those found in Ontario and other Canadian institutions.

The reader will see at a glance that English training colleges place the emphasis on literature and perhaps mathematics, while paying but meagre attention to history of education and educational psychology. As a matter of fact, in some of the colleges with two-year courses only neither educational psychology, as such, nor history of education finds a place. The tendency everywhere is to restrict the extent of the history of education course to the nineteenth century or some other short period. In psychology, on the other hand, the course tends to become increasingly important and arranged so as to serve better the needs of teachers. The lecture method is universally employed; there is little of the give and take between teacher and class which is so prominent a feature in American normal schools. In library work also English training colleges are sadly backward. But no one doubts that the preparation given is very thorough; the English teacher may not know many subjects, but the branches he has studied he knows thoroughly.

Each training college must make adequate provision for the practice of teaching by the students. The practice school attached organically to the college receives the name of demonstration school. A demonstration school may be a public elementary school in the immediate neighbourhood of the college, but in such a case the governing body exercises effective control over its organisation (including staffing), discipline, and instruction and secures that these shall be the best available. Usually, however, the demonstration school is more closely attached than this to the parent training college. All other elementary schools, if requested to do so, must, as a condition of recognition by the Board, open their doors to students-in-training for purposes of practice-teaching. The practice-teaching is of two kinds—open or demonstration lessons by a teacher or student before a group of students (these lessons are subsequently discussed in class), and continuous teaching for periods extending over three or four weeks. The demonstration lessons are usually given in the demonstration school during term time; the latter in the summer time after lectures cease. There are, however, many variations in the arrangements that different colleges make for practice-teaching. In all cases the practice-teaching of the students is closely supervised, not only by the college staff, but also by the teachers in the elementary schools whose classes are temporarily taken over by the students.

(*b*) *Three and Four Year Students.*—Each of these two classes of students attends university training colleges, that is, departments or faculties of education which are constituent parts of universities. The successful organisation of such courses of training is England's unique contribution to the world-wide problem of teacher-training. Three and four year students, so far as their academic training is concerned, cannot be distinguished from other students in the university—students in arts, science, medicine, or law. They also enjoy all the social privileges of the university—its societies, its athletics, its corporate life in general. For a number of years these prospective elementary teachers live in the academic and social atmosphere of a university, and the broadening effect on their minds and characters is very marked. While other students in training live in an atmosphere which savours of the school, where all are prospective teachers and where the training is somewhat narrowly professional, these three and four year students associate with contemporaries looking forward to very varied careers in service of church and state, and sit at the feet of teachers who represent the highest of scholarly attainments in their respective fields of learning.

The course of study is divided into two parts—the academic and professional. The academic part comprises subjects leading to the bachelor's degree, either honours or ordinary. The academic course selected by the student is usually arts or science, although engineering has been sanctioned by the Board. Education in English universities is usually one of the subjects for the bachelor's degree, and to this extent the student-in-training kills two birds with one stone. The professional side of the work includes the study of the principles and practice of teaching, theory of music and singing, reading and recitation, drawing, and (for women) needlework. The course for three-year students is arduous, for in three years (the ordinary period of study for a degree) they must do all the work leading to the degree as well as the professional studies outlined above. The student naturally places the emphasis on his degree work, since by it alone can he hope to raise himself into the class of secondary teachers, while he neglects his professional subjects as much as he dares. To meet this objection the Board has extended the period of training, for all who care to avail themselves of the opportunity, to four years. The first three years are almost free from professional work and the student can concentrate on academic studies leading to a degree; the fourth year, the post-graduate year, is wholly devoted to professional work. The course is working excellently. There are few countries, if any, which can boast such well-trained elementary teachers as the graduates of the English four-year course.

At the end of the course, whether it be for two, three, or four years, come the examinations and certification. The written papers in subjects of the two-year course are usually set and examined by the Board; the practical side of the work is virtually passed upon by the college staffs. The Board's inspectors act as assessors and see that standards are maintained. The colleges may, however, either group themselves for a joint examination which all can agree upon, or they may call in the members of some university staff to judge of their success. The Board in such cases asserts its rights to supervise the arrangements. With university students no examinations are set in academic subjects, as the degree is accepted in lieu of them. The practical side of the work is judged by the staff with the Board's inspectors acting as assessors. The successful students are awarded a certificate which is valid for life in any government-supported institution. The certificate records for each candidate (*a*) the name of the college in which he was trained; (*b*) details of his training and success in examinations; and (*c*) a statement of the subjects included in his course of study. Appointing committees can thus see at a glance if a candidate possesses the requisite qualifications for the post they wish to fill.

Practically the whole cost of training teachers is borne by the Board of Education. Grants are given for buildings and for the training of students. The latter are on a per capita basis, and naturally promote competition between colleges for students. It is no unusual thing to find advertisements for students in the daily papers. The aid given is generous. A college, for example, receives £53 on account of each male student in residence. Fees are paid by the Board for students in university training colleges. The students themselves receive maintenance allowances amounting each year to £25 for men and £20 for women.

Although England is still far from the stage when training can be demanded of every teacher employed in the schools, great progress has been made. Progress will be even more rapid when the general population realises that trained teachers receiving adequate remuneration for their services are absolutely essential for the proper well-being of the country. And it must not be forgotten that in linking up the training of elementary teachers with the other activities of modern vigorous universities, England has made a most notable contribution to the solution of one of the most difficult of modern problems.

VI. WELFARE WORK

By welfare work is meant the many and varied agencies employed for conserving the health of children and for promoting their general happiness. In this field of activity England has made more progress than in any other department of educational organisation. But the movement is of recent origin. During the greater part of the nineteenth century she almost forgot that the dictum of her great teacher, John Locke, remains eternally true: that "A sound mind in a sound body *is* a short, but full description of a happy state in this world."

Humane feelings rather than logical reasons dictated the early policy of the new health movement. The acts dealing with the education of the blind and deaf (1893), the defective and epileptic (1895), are best regarded as continuations of the great humanitarian movement of the nineteenth century. It was the Boer War (1899–1902) which really aroused England to the seriousness of the physical defect in her midst. At the same time came the realisation that the prevention of sickness is better than its cure, and is also far more economical. Hence arose what has been aptly described as the compulsory health movement.

The movement exhibits many phases. First and foremost must be mentioned the inauguration in 1908 of a national compulsory system of medical inspection of school children. At first only those children entering or leaving school were examined; an intermediate age group, eight to nine years, was added in 1914.

Great progress has also been made in the co-ordination of all the services directed towards the conservation of the health, not only of school children, but of citizens of all ages. This co-ordination, however, is not easy, owing to the number of authorities in central control of different aspects of national health.[1] Consequently serious overlapping is frequent and among the voluntary relief agencies and infant care committees in towns competition for cases is not unknown. As an example of the change of spirit the case of medical inspection of scholars may be cited. For some years there was a feeling abroad that it was being pushed in order to save future expense to the state in connection with the National Insurance Act. There was some justification for resentment when an obviously national burden like medical inspection was wholly thrown upon local authorities. But with increasing grants by the Board of Education (these now cover one-half the total cost of inspection and treatment) this feeling gradually disappeared and is now practically non-existent.

Another important aspect in the national conservation of health is the discovery of the value of fresh air. The movement directs its energies into three main channels—the provision of playgrounds for children both in connection with schools and with parks; the organisation of open-air schools and the building of open-air classrooms; and the provision of national sanatoria for tubercular patients. The last-named are, of course, only indirectly connected with education. They are part of the national insurance scheme, but efforts are now being made to link them up with school medical inspection and the provision of clinics.

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[1] For example, sanitation, public health, and infectious diseases are controlled by the Local Government Board; the industrial employment of pregnant women falls within the province of the Home Office; midwives are supervised by a Central Midwives' Board under the Privy Council; domiciliary medical treatment of working women and the dispensing of the maternity benefit are under the jurisdiction of the National Insurance Commission; while medical inspection of schools and scholars, open-air schools and institutions for the blind, deaf, and cripples, the training of girls in the care and management of infants, in home nursing and hygiene, are controlled by the Board of Education. It is high time that a Minister of Public Health was appointed to co-ordinate these various services.

In a somewhat different category, but still closely related to the movements outlined above, are the provisions made for the education and care of children who are subnormal either in mind or body. At first permissive legislation was passed to deal with the various subnormal groups. The problem became so acute, especially in connection with mentally defective children, that compulsory legislation became necessary and has recently (1913 and 1914) been enacted.

Another aspect of welfare work is that which concerns itself with the feeding of necessitous children. Careful observers had long ago pointed out the futility, even the cruelty, of trying to educate children whose bodies were starved. A first, hesitating step was taken in 1906, when the Education (Provision of Meals) Act was passed. The scope of the original measure has been increased by the passing of the 1914 act. When the scheme was introduced there were loud cries about pauperising the working man, the thin edge of the wedge of socialism, etc., but granting all these limitations, the modern state cannot penalise children for the sins or shortcomings of their parents. Moreover, the scheme has justified itself by its success.

Still another movement in health conservation is that which focussed its energies upon children of pre-school age. Medical inspection of school children revealed many preventable defects and injuries which were acquired during infancy and early childhood. How to get at the mothers and the babies was the problem. Two avenues of approach were found possible. The first was the extension of the voluntary institutions known as schools for mothers. These are agencies for educating mothers in the care and management of babies. They are now becoming co-ordinated with the school medical services, sanitary authorities, baby clinics, and similar organisations. The second was the establishment of day nurseries. These are institutions which care for infants, usually under three years of age, for whom adequate care cannot be provided in the home by reason of the absence of the mother at work, or other similar cause. The main endeavour looks towards the promotion of the physical welfare of the children, and in this marked success has been achieved. One-half the total cost of each type of activity is now met by grants from the Board of Education.

In all these movements a gradual change of emphasis is seen. At first environment was considered all-important; latterly the person as an individual receives the main attention. There is exhibited a tendency to get back to origins in health—to healthy parenthood (the most important), to healthy infancy, and to healthy childhood.

Such in outline are the main features of the new health movement in England. Lack of space forbids more than the merest mention of the details of the chief of these. But the more important aspects of one or two of them will now be described.

Medical Inspection of Scholars.—The aim of medical inspection and all its attendant agencies, whether in England or elsewhere, is to enable the individual scholar to obtain the full benefits, both physical and intellectual, of the education which is provided. This aim is furthered by (*a*) the discovery at as early an age as possible of physical defects and chronic ailments of importance; (*b*) the adoption of measures which will ensure that the curable defects and ailments receive appropriate attention without unnecessary delay; (*c*) the early detection of infectious and contagious disease so that, by exclusion and isolation, the rest of the pupils and the community at large may be protected; (*d*) the inspection of school premises so that insanitary conditions may be reported upon and remedied as soon as possible; and (*e*) the compilation of tables, data, and statistics to serve as a safe basis for further legislative measures and the organisation of other medical agencies which have as their aim the removal of the causes that underlie the unfitness and disease incidental to school life.

Medical inspection, like other branches of educational administration in England, exhibits both central and local control. The central control is in the hands of the Medical Department of the Board of Education, which does duty for Wales as well as England. At its head is the chief medical officer of the Board, who is finally responsible for the general organisation and administration of the school medical service throughout the country. Uniformity of procedure and of records is essential, and this is secured by the issuance of circulars and by demanding that the local school medical officers' reports be prepared in conformity with certain specific instructions as to style and content. Twelve copies of each local area report must be forwarded to the Board. From these the chief medical officer compiles his annual reports to Parliament, justly famous as the best reports of their kind in the whole world.

The problem of local control in England presented some difficulty owing to the overlapping of health agencies. School medical inspection, upon its introduction in 1908, was placed under local education authorities, who were each to appoint a school medical officer. Other medical services were, however, already in the field. The sanitation areas into which the country was divided were controlled locally by the medical officer of health, who reported to the Local Government Board. Hence arose the possibility of conflict over the powers exercised respectively by the school medical officer and the medical officer of health in a given district. The obvious solution of this difficulty was to place both health services under the same responsible head. This has usually been accomplished by appointing the medical officer of health to the position of school medical officer. When the two offices, owing to local jealousies, are not identical a *modus vivendi*, calculated to avoid the evil results of overlapping and conflict, has been established. Of the 269 school medical officers approved by the Board to March 31, 1914, only forty-eight were not medical officers of health for their districts.

In the discharge of his duties the school medical officer is helped by assistant medical officers, school nurses, teachers (especially head-teachers), school attendance officers, and after-care committees. The excellent way in which the services of each have been co-ordinated reflects great credit upon the administrative capabilities of the majority of school medical officers.

There are 317 areas for elementary education in England and Wales, each with its full-time or part-time school medical officer. In 162 of these areas there are in addition 524 assistant medical officers, making a total of 841. Of the 841 officers, ninety-three are women, most of whom devote their whole time to inspection. To this large total must be added 338 specialists—ophthalmic, dental, aural, anaesthetic, X-ray, etc., of whom forty-seven are full-timers. Nurses are employed to the number of 1184, of whom 558 devote their whole time to the school medical service. These figures give an excellent idea of the comprehensiveness of the English school medical service.

The inspection of the children is conducted, with negligible exceptions, on school premises and in school hours, in such a way as to interfere as little as possible with school work. The convenience of the teaching staff and the circumstances of each school receive consideration. In the routine examinations the head-teacher of the school is notified by the medical officer as to the date of the examination. The head-teacher, in turn, notifies the children and asks the parents to be present during the examination. During the examination of girls, a woman, either a teacher or school nurse, is invariably present. The results are entered on special cards, which are drawn up in accordance with the requirements of the Board and kept strictly private. Differently coloured cards are used to indicate different groups—boys, girls, entrants, leavers, specials, and the like. Absentees are noted and usually receive their inspection when special cases are re-examined. In country schools one or two visits per annum suffice to complete the inspection; in city schools routine examinations are conducted almost incessantly. The time taken per inspection averages between six and seven minutes.

According to the chief medical officer of the Board "defective nutrition stands in the forefront as the most important of all physical defects from which school children suffer." Malnutrition in town children is found to be double that in country children. It also increases with the age of scholars. To combat this evil England has introduced a national scheme for feeding necessitous school children. By the act of 1914, local authorities may feed necessitous children on any day of the year, and their spending powers have been removed beyond the limit of the halfpenny rate. Limited grants are available to assist the local authorities in their work and these are distributed at the discretion of the Board. In fixing the grants the Board takes the following points into consideration: "(*a*) the extent to which the work is co-ordinated with that of the school medical service; (*b*) the care exercised in the selection of the children for admission to the meals; (*c*) the sufficiency and suitability of the dietary; (*d*) the extent to which attention is given to the educational aspect of the work; (*e*) the suitability of the accommodation and equipment and the efficiency of the service and supervision of the meals; (*f*) the completeness of the arrangements made for ascertaining and recording the effect of the meals on the physical and mental condition of the children; and (*g*) the economical administration of the work." The work, therefore, is not considered a scheme for temporary relief or charity to be administered as cheaply as possible in cases of poverty, but rather as a true correlative of school medical inspection and as a means of giving a training in the social amenities of the table. Both rich and poor receive these meals, the cases being selected on medical grounds by the school medical officer. About 130 local authorities provide meals for some 120,000 children. Sixteen million individual meals are provided each year at a cost ranging from 1d. to 3d. Of these London provides one-half. The number of meals works out at seventy per child each year.

Other defects having an important bearing on school work are defective vision, defective hearing, tuberculosis, and dental disease. The records to date show that only eighty-six per cent. of boys and eighty-one per cent. of girls have good vision (6/6 and 6/9); that eight per cent. of the children are subnormal in hearing, and of these one per cent. are permanently deaf; that sixty per cent. of school children are tubercular; and that eighty or ninety per cent. have unsound teeth.

Treatment, both medical and dental, naturally followed medical and dental inspection. Clinics have been established in large numbers throughout the country. At first the local education authorities began their clinics in a humble way. They restricted their activities to the treatment of minor injuries and ailments. Encouraged by grants from the Board, additional and more ambitious clinics were planned. In 1915, 190 out of the 317 educational areas had established 300 clinics, and many others were under consideration. The establishment of these clinics has reduced the amount of leakage between inspection and treatment, reduced the time taken to cure defects, and succeeded in stimulating the interest of parents in the physical welfare of their children as nothing else has done.

Open-Air Schools and Classes.—The increasing urbanisation of modern peoples has deprived them of fresh air and sunlight. Children are, in a majority of cases, mewed up in badly ventilated homes and schools during the greater part of their days. As a consequence an increasing proportion of modern children suffer from tubercular complaints, anaemia, bronchitis, and other chest diseases, while an alarming number are malnourished, delicate, or debilitated to such an extent that they easily become the prey to diseases of various kinds. All children would be improved by more fresh air and sunlight; about ten per cent. are in urgent need of more of these benefits.

The open-air school is a process or a treatment. It is not merely a class which has been transferred bodily from indoors to outdoors. Every possible variety is found in England, from a classroom which has had a side knocked out or a window permanently opened to a sanatorium school for tuberculous children. The following are the main types:

1. Country schools.
2. Playground classes or classes in the open air.
3. Open-air classrooms.
4. Day open-air schools.
5. Residential open-air schools.

A country school, such as the Country School for Town Children of the Manchester Education Committee at Mobberley, Cheshire, provides an opportunity for a succession of town children to enjoy a fortnight in the country during the summer months. The school is very informal, though some lessons are undertaken. Only reasonably healthy children are allowed to attend, so those children most needing the treatment are debarred from its advantages. Consequently a newer type of country school is in process of evolution. The Leicestershire Education Committee, for example, has established a country school for the reception of children in delicate health for a few months in the summer time. The children carry on their educational work and benefit greatly from the fresh air, regular meals, and supervised rest.

Playground classes are held either in the open playground or in playing sheds. In some cases the bandstand in a neighbouring park has been utilised for the purpose. Sometimes all the classes of a school use the accommodation in rotation; in other cases it is limited to delicate children from the whole school. In the latter case there is considerable difficulty in teaching the children owing to the different standards of educational attainment.

Open-air classrooms appear to be the coming feature in school architecture. Either existing school buildings can be utilised or new schools planned specially for the purpose. The existing classrooms may have the open window space increased or one side entirely removed. In new schools arrangements are frequently made whereby the whole of the southern fronts of the rooms can be thrown open to communicate with a verandah. The loggia type of school has been heartily endorsed by the educational and medical authorities. In these all the children can enjoy the advantages of fresh air and sunlight, while ordinary school activities, with minor modifications, are carried on in the usual way.

Day open-air schools are invariably established in the country in places where the transportation of the pupils is easily effected. The end of a suburban tramway (street car line) is a favourite spot. The location is carefully selected. It must be sheltered from prevailing winds, be wooded if possible, and quiet and restful. The children who attend are selected because of delicacy or debility and are transported night and morning. They usually remain from six months to a year in a school.

These day schools have multiplied so rapidly that they may now be regarded as the typical open-air schools of England. They have been recognised by the Board of Education under the Elementary Education (Defective and Epileptic Children) Acts and therefore receive high grants. In 1913 there were ninety-seven schools recognised for physically defective children with accommodation for 7640 scholars. Of these twelve were day open-air schools with accommodation for 985, and nine were residential open-air schools of recovery with accommodation for 484 children.

The children attending a day open-air school are selected in the first place by the teacher. The final selection is made by the medical officer on definite medical grounds. Children suffering from debility, anaemia, malnutrition, etc., are included. According to the regulations governing the institutions, the children must be taught in small classes and given short hours of instruction. The curriculum must include manual training and the schools may be kept open during the ordinary school holidays.

The following is a general description of an open-air school. The children are usually transported by trams (street cars) and the education committee may pay the fares of the pupils where necessary. They may also remit the fee of about half-a-crown a week in cases of poverty. The staff of each school, in addition to the regular teachers, includes a nurse and a cook. The pupils receive three meals a day—breakfast, dinner, and tea—and, if necessary, milk and cod-liver oil. After midday dinner all the pupils rest (sleep) for about two hours. A medical examination of each child is made every fortnight, and weight and height records are carefully kept. It has been found that while the weight records may show variation and any increase may not consistently be maintained, the haemoglobin content of the blood is always well marked. The lung capacity also is almost invariably increased.

The educational advantages are also prominent. While the reports on the pupils returned to the ordinary elementary schools bear universal testimony to their quicker response, greater keenness, and higher mental energy, this improvement must be set down as much to the different educational regime as to the increased physical fitness of the scholars. The greater part of the curriculum consists of manual work in some form or other, nature study, and gardening. Around this core of practical subjects the geography, composition, arithmetic, and drawing are grouped. For an original and enthusiastic teacher the open-air school provides a limitless field.

Nor must the training in the amenities of social life which the school affords be forgotten. The children are trained in good table manners and to be careful of the rights of others. Many excellent habits, such as washing before meals, the use of the toothbrush after meals, and so forth, are also taught.

Residential open-air schools are intended for more serious cases than can be dealt with in day schools. They are of two main types: (1) sanatorium schools, where children suffering from active tuberculosis are treated and educated; and (2) schools of recovery, where the pupils attending suffer from chronic ailments of a non-infectious character, such as heart disease or severe anaemia.

To sum up: open-air schools provide the following conditions necessary to good health and proper education—fresh air and sunlight, a proper and sufficient diet, rest, a hygienic mode of life, individual attention, medical treatment where necessary, and special educational method. It is a pity that the ideas underlying them cannot be extended to cover the education of all children.

Schools for Mental Defectives.—Another important aspect of welfare work concerns the training of mentally defective children. It has long been known that some children were hopelessly dull, some ineducable, but only recently has a scientific classification into idiots, imbeciles, feeble-minded, etc., been possible. The whole subject is beset with difficulties, especially as to the kind of training which is best suited to each of the classes. From both the educational and social standpoints the class known as the feeble-minded constitute the most pressing problem. The feeble-minded shade off at the upper end into those merely dull or backward; at the lower into the higher grade imbeciles. They are defined in the Mental Deficiency Act, 1913, as:

> "Persons in whose case there exists from birth or from an early age mental defectiveness not amounting to imbecility, yet so pronounced that they require care, supervision, and control for their own protection or for the protection of others, or, in the case of children, that they by reason of such defectiveness appear to be permanently incapable of receiving proper benefit from the instruction in ordinary schools."

In general it may be said that feeble-minded persons under proper educational guidance can reach a standard of attainment normally found in children from eight to twelve years of age. They can be taught to run errands, make beds, and do general routine work. The higher grades can do fairly complicated work with only occasional oversight, care for animals, and even use machinery. But none of them can plan, exercise forethought, or show good judgment.

This chronic immaturity, combined with the fact that their bodies attain full maturity, constitutes the great social problem of the feeble-minded. The average family of a feeble-minded couple numbers nearly eight, while the normal family averages a little more than four. They are therefore on the increase in civilised communities since the defect from which they suffer is largely hereditary. Routine medical inspection since 1908 has given reliable statistics for England. According to the chief medical officer of the Board, "The total number of mentally defective children of the feeble-minded type, excluding idiots, imbeciles, and the lowest grade of the feeble-minded, is about 25,000 in England and Wales, that is to say, approximately one in 200 of the children in average attendance." Dr. Tredgold, a reliable authority, estimates that in every 10,000 population there are (taking the nearest whole numbers) idiots, two; imbeciles, seven; feeble-minded adults, fifteen; feeble-minded children, fourteen; insane, thirty-six. The same authority states that there are 12,000 to 13,000 moral imbeciles in England. There are more feeble-minded males than females. Among children the ratio is about three to two. Taking all mental defectives into account the proportion is six males to five females.

Such a serious state of affairs has caused England to take very drastic steps to deal with the problem. She has now passed more comprehensive measures than any other country. The two acts controlling the situation are the Mental Deficiency

Act, 1913, and the Elementary Education (Defective and Epileptic Children) Act, 1914. The former provides for:

1. The constitution of a central authority known as the Board of Control, consisting of fifteen commissioners.
2. The constitution of local authorities which are the county and county borough councils. The councils work through special committees, some members of which must be women.
3. Institutions to which defectives may be sent. These are:
    - (*a*) State institutions maintained and controlled by the Board of Control for the accommodation of defectives of criminal, dangerous, or violent tendencies.
    - (*b*) Certified institutions maintained either wholly or partly by local authorities.
    - (*c*) Certified houses which may be kept by persons for private profit.
    - (*d*) Approved houses supported partly or wholly by voluntary contributions.
    - (*e*) Guardianship under which defectives may be placed.
4. The circumstances rendering defectives subject to be dealt with.
5. The methods of procedure in dealing with them.
6. The duties of local education authorities under the act.
7. The finance of the measures.

The measure insures that every mental defective is registered, and that every low grade and criminal defective is either incarcerated or placed under responsible guardianship for life. The second of the two acts compels every educational authority to make educational provision for all feeble-minded children between the ages of seven and sixteen.

There are now 183 certified schools for mentally defective children, providing accommodation for 14,082 children. The majority of these are day schools, namely, 172 with a total average number of 12,569 children on the register. The accommodation for mental defectives will be doubled in the near future as the new compulsory act came into force on January 1, 1915.

The curricula of the schools provide for a graded training of the sensory powers, for a large amount of manual work, and for a vocational training, which can only be fully developed in residential schools and colonies, to fit them eventually to earn their own livings, partially, if not entirely. Experience has shown that the efforts made to bring up the mentally defective children to standards acceptable in the ordinary schools in reading, writing, and arithmetic are not only unprofitable, but are not suited to their needs. Some work in the three R's is undertaken, but the emphasis at present is placed upon nature study and observation work, physical exercises and games (on which stress is laid), drawing and manual work. The ordinary school subjects are taken in the morning as a rule and the manual work in the afternoon. The methods of teaching reading and arithmetic are as varied as the situation demands, the concrete, of course, always predominating. In the former subject the teaching of letters and easy combinations is accompanied by writing in some cases, in others by making the letters and words in clay or other media. To prevent any flagging of interest the pupils are constantly reclassified for reading and arithmetic. But it is in other subjects that the efforts of the devoted teachers are crowned with the greatest success. The drawing, crayon, or brush work in some of the schools for the higher grade feeble-minded will bear comparison, allowing for the additional time given to these subjects, with the results obtained in many schools for normal children, while the ordinary handwork—knotting, knitting, raffia-work, basket-work, bead-work, etc.—is in many cases superior, showing not only better execution, but, when possible, good taste in design and colour.

In recent years industrial training has been added for older children. The girls are taught needlework, metalwork, tailoring; gardening, and agricultural work, including the care and management of horses, cows, and poultry. Where it is found impossible to teach a pupil any of the three R's the instruction in manual and industrial training is increased, provided that it is possible to make the pupil concerned industrially useful.

The annual cost of maintaining the special day schools for mentally defective children is from £10 to £12 per capita, toward which a government grant of £6 for each unit in average attendance is paid. This is more than twice the cost per pupil (£4 13s. od.) in ordinary elementary schools. In the residential special schools for mental defectives the annual cost for each child ranges from £25 to £40. The grants for this type of institution have recently been increased to one-half the total cost of the school, including interest on capital expenditure as well as maintenance charges. These are very generous terms and a large increase in the number of residential institutions may be confidently expected.

Other Types of Welfare Work.—Space forbids extended mention of other very interesting forms of welfare work undertaken in England. The schools for the blind and partially blind, the schools for the deaf and partially deaf, the schools for epileptic children, the industrial and reformatory schools for moral delinquents, the school banks for encouraging thrift, the voluntary agencies known as after-care committees, are each of them worth further study by the reader interested in them.

VII. CONTINUATION SCHOOLS

There are two distinct connotations of the phrase "continuation schools" as used in England. In the narrower sense it means evening schools where the elementary instruction of the day school is continued and given either to young ex-elementary pupils or to adults who wish to revive their fading knowledge of the three R's. In its wider meaning, which is the one used in this section, it includes technical schools, evening continuation schools, schools of art, and all other forms of provision of further education in some employment or avocation during the greater part of their time. Continuation schools therefore are designed for wage-earners and this factor has determined their line of development.

In the days before compulsory education many philanthropic and voluntary agencies endeavoured to provide a means whereby the masses could obtain at least a modicum of the knowledge which a defective provision of schools denied to them. The agencies deserving the highest commendation for their efforts are, in order of their origin, the Sunday schools, the adult schools, the mechanics' institutions, the working men's colleges, the various co-operative societies, and the Young Men's Christian Associations.

With the development of state enterprise in education the problem assumed a new form. The continuation and not the beginning of elementary education was now the task confronting educators. In the generous enthusiasm for evening schools in the early days of compulsory education, the founders expected young men and women, and people of maturer years, to crowd into schools after a hard day's work, seeking eagerly those elements of learning upon which they had whetted their appetites or had hitherto been denied the opportunity of acquiring. But they were doomed to disappointment. The fare they provided was too dry and had too little contact with the vocations of the pupils they wished to attract. Gradually, however, by a process of trial and error, the three R's curriculum was enlivened by musical drill, vocal music, lantern lectures, wood carving, clay modelling, cookery, and other interesting studies. Somewhat later commercial and technical subjects, including practical work, were added and a partial solution achieved. But in England, as elsewhere, the education of the adolescent worker is the most difficult of all educational problems confronting the authorities, and it still remains the greatest blot on the system.

The reasons for ill-success with continuation schools are fairly obvious. Attendance at them is voluntary and young employees, feeling that independence which comes with the first flush of wage-earning, are only too reluctant to return to the discipline of school from which they have but recently escaped. If elementary schools were perfect and engendered a spirit of inquiry and love of knowledge in the pupils, this difficulty would appear in a much milder form, but, it must be confessed, the majority of young adolescents find elementary schools irksome. There is also a lack of interest among the majority of employers. Overtime is required of young employees at busy seasons and attendance at continuation schools becomes unsatisfactory. Young pupils are also apt to over-estimate their strength and enthusiasms, and many attempt either too many or too difficult courses. Added to these difficulties, there is only too frequently an undesirable, unstimulating curriculum, taught by men and women with little insight into adolescent aspirations.

The sole administrative problem connected with continuation schools is to secure the continuity of the educational process. But this problem has many parts. Continuation schools must be linked up with elementary schools. A stimulating programme of studies taught by enthusiastic teachers must be provided in order to hold the interest of the pupils. The curriculum must have vital relationship with the occupations of the pupils yet continue the general education given by the elementary schools. Regular attendance must be secured by enlisting the sympathetic cooperation of employers and parents.

The Consultative Committee of the Board of Education, reporting in 1909 on "Attendance, compulsory or otherwise, at Continuation Schools," stated that local education authorities, in order to increase attendance at continuation schools and to improve the quality of the work done in them, should concentrate upon the following points:

> (1) The improvement of the elementary day schools (*a*) by introducing much more practical work into the courses of study; (*b*) by reducing the size of the classes; and (*c*) by increasing the proportion of

fully qualified teachers, in order to strengthen the educational foundations upon which the work of continuation schools must be built up.

(2) The raising of the standard of exemption for day school attendance, and the strict enforcement of regular attendance, in order to improve the educational qualifications of the children for subsequent work in continuation schools.

(3) Encouragement and help given to the day-school teachers and managers in advising parents as to the subsequent employment of their children, and as to the courses of further education which will fit them for skilled occupations. Where possible this should be done by the promotion or establishment of juvenile employment registries.

(4) Systematic visitation of parents, especially those whose children are about to leave the elementary day schools, and of employers, with a view to securing continuity in the further education of the younger members of the community.

(5) Investigation of the industrial and other conditions of the district with a view to the provision of organised courses of instruction in continuation schools in close adjustment to the economic and social needs of the population.

(6) The organisation of advisory committees of representative employers and workpeople in each trade, with a view to securing their co-operation in the planning of courses of practical instruction and to encouraging the attendance of younger workpeople at continuation classes.

(7) Systematic propaganda by means of meetings and the distribution of circulars, with a view to pressing the importance of continuation schools and classes upon public attention.

(8) Careful co-ordination of the administration of all forms of education.

(9) Co-operation with or, where desirable, representation upon the committees of voluntary organisations which aim at the improvement of attendance at continuation schools.

(10) The preparation, and transmission to employers, of reports upon the progress of their employees in continuation schools.

(11) The issue of certificates of continuous attendance to regular pupils.

The majority of these recommendations have been adopted and put into practice by local education authorities. That concerning juvenile employment registries was made statutory by the Education (Choice of Employment) Act of 1910. Under this statute local education authorities were empowered to appoint a special sub-committee, consisting of representatives of industry and education, whose duties were to see that pupils leaving school obtained suitable employment and continued their education at evening schools. In Liverpool the circular letter sent to leavers contains the following phrase:

> The committee want you to look upon them as your friends, for they are anxious to help you. There is one point to which they would wish your attention to be specially drawn. *You ought not on leaving your day school to think that your education is completed,* but should seek to join a suitable evening continuation school in your neighbourhood. About this your teacher will advise you.

Many education authorities, in order to secure the attendance of pupils at continuation schools during their first year of employment, have granted free admissions to them on leaving the elementary schools. In some cases free admissions are only granted on the undertaking of a guarantor, a parent or employer, to return the value of the fees in the event of unsatisfactory attendance. Further, to secure continuity of schooling throughout several years of a course some authorities offer prizes annually which carry with them a rebate of the fees for the following session. To obtain these prizes students must have made ninety per cent. of possible attendances, sixty-six per cent. of the possible marks for homework, and have been successful in the examination for the course.

Careful students of continuation schools are of opinion that the employer is the real crux of the problem. It must be confessed that the majority of employers are indifferent about the educational advancement of their employees. There are, of course, many honourable exceptions, but the average employer is quite apathetic. On them should devolve the burden of enforcing attendance of their employees at continuation schools. They are able to make attendance an absolute condition of employment. But nothing of moment will be achieved until attendance at evening schools is made compulsory on all young persons below seventeen years of age who are not otherwise receiving a proper education. Such a measure involves (*a*) that it should be the statutory duty of the local education authority of each county and county borough to make continuation schools compulsory for residents within the area from the time they leave school to seventeen years of age, and (*b*) that it should be the statutory duty of every employer of any young person under seventeen years of age to enable him or her to attend continuation classes for such period of time and at such hours as may be required by the education authority of the district.

Much, however, has recently been achieved by a complete reorganisation of the courses in many areas. In the first place, co-ordinated and graded courses extending over a period of two or three years have replaced the single-subject courses common a few years ago. Secondly, the courses have been made far more vocational in character than was the case formerly. The first of the tendencies may be illustrated by the organisation met with in the Manchester continuation schools.

Diagram illustrating the Graded System of Courses of Instruction adapted to the Requirements of the Different Classes of Students in the Manchester Evening Schools

Grade III. Central Institutions

Municipal School of Technology.	**Municipal School of Commerce and Languages.**	**Municipal School of Art.**	**Central Evening School of Domestic Economy.**
Advanced instruction in science and technology	Advanced instruction in commercial subjects and in languages	Advanced instruction in art and design	Advanced instruction in domestic subjects

Grade II. Branch Technical Schools, Branch Commercial Schools, Branch Art Classes, and District Evening Schools of Domestic Economy

Second, third, and fourth year technical courses to meet the requirements of all classes of technical students	*Second, third, and fourth year commercial courses,* to meet the requirements of juniors in business houses	*First and second year art and handicraft courses,* leading up to the instruction at the Municipal School of Art	*Specialised instruction in domestic subjects,* for women and girls over 16 years of age.

Grade I. Evening Continuation Schools

First and second year technical courses, for boys engaged in manual occupations	*First and second year commercial courses,* for boys and girls engaged in commercial or distributive occupations	*First and second year domestic courses,* for girls desirous of receiving a training in domestic subjects

Preparatory Course

For boys and girls who desire to improve their general education or who are not sufficiently prepared to take advantage of the above courses.

The second tendency is illustrated by the types of institutes established by the Education Committee of the London County Council:

(1) Commercial institutes, providing an advanced commercial education for both sexes.

(2) Junior commercial institutes, providing a preparatory commercial education for both sexes.

(3) Junior technical institutes, providing a preparatory technical education for male students.

(4) Women's institutes, providing education in domestic and health subjects for female students.

(5) Women's institutes in connection with girls' trade schools.

(6) Institutes with more than one department.

(7) General institutes, providing a general education for both sexes.

(8) Free institutes, providing a general education, but not commercial, for both sexes.

(9) Institutes for the deaf, providing a general education for deaf students of both sexes.

(10) Institutes of a non-vocational type for students over eighteen.

(11) Special classes which are arranged for such students as police, post office, and other government boy-messengers.

Fees are remitted in the second session to all students who make seventy-five per cent. of possible attendances in the first. The whole of the courses are closely co-ordinated and have consequently met with a fair measure of success. In 1914 over 50,000 students were in attendance. Students under eighteen years of age in the majority of the courses were required to attend three evenings of two hours each per week during a session of thirty weeks.

Closely connected with the vocational continuation schools are the technical institution courses, day technical classes, and junior technical schools. Technical institution courses and day technical classes are designed for secondary-school pupils who desire to round off their courses with a year or two of technical training. Junior technical schools provide a full-time education under school conditions for pupils from elementary schools in preparation either for artisan or other industrial employment or for domestic employment. Each course is organised to cover either two or three years. The curriculum must have a distinct vocational bias, although the moral, intellectual, and physical education given in elementary schools must also be continued. The trades and professions catered for by junior technical schools depend upon the industries of the neighbourhood. Among others, engineering, the building trades, chemical industries, electrical industries, and metal trades find a place in the Manchester, Liverpool, and London schools. The practical work in the shops is the most interesting feature of the various courses.

Continuation schools in rural districts present a more serious problem than those in urban centres. Here there is a more general apathy towards education and only too frequently the teachers have little sympathy with or knowledge of rural needs. Still much has been accomplished by such enterprising committees as those of Gloucestershire, Cambridgeshire, and the West Riding. Excellent courses in agriculture, poultry- and bee-keeping, shoeing, dairying, and forestry are to be found in each of these counties.

No account of further education in England can omit brief mention of the tutorial classes under the auspices of the Workers' Educational Association. These classes are taught by vigorous university lecturers and are attended by equally vigorous artisans and workpeople. The classes are limited to thirty, so that personal relations can be more easily established between the teacher and pupils. Two-hour sessions are the rule. In the first hour the teacher delivers a set lecture, while in the second a general discussion on the topic of the lecture takes place. Weekly or fortnightly essays are required, and by the time the pupil has finished a three-years' course in a subject, work of a high university standard is being accomplished. The subjects usually chosen by tutorial groups are economics, economic history, English literature, English history, and sociology. The classes are recognised both by the universities and the Board of Education and occupy a unique place in educational experiments.

England is still behind America and Germany in the provision of continuation schools with a vocational bias. Much progress, however, has recently been made, and one of the most hopeful signs is that the hostility or apathy of employers and trades unions is gradually giving way to something approaching interest.

VIII. SECONDARY EDUCATION

To the majority of foreign students of English education the secondary branch presents the greatest difficulty. They have heard of the great English public schools, yet when they examine the conditions they find, usually to their surprise, that only a small fraction of the secondary-school population is educated in them. They have learned that since 1899 the Board of Education has been constituted the central authority for all forms of education, yet upon inquiry they discover thousands of private schools, calling themselves secondary, which are under no external control whatsoever. No wonder they feel confused and ask themselves if there really is a *system* of secondary education. The truth of the matter is that prior to 1902 English secondary education was in a state of chaos. Since that time the aims and purposes of secondary education have become clearer; the schools have been strengthened and unified; and a newer progressive spirit has been infused into the work.

Perhaps the most difficult aspect of the work, so far as explaining it in cold print is concerned, is the essential spirit underlying it. In the first place, the ideals of the secondary school differ more profoundly in England from those of the elementary school than they do in America. It is claimed that English elementary schools depend for their success upon their methods; the secondary schools upon the personality of their teachers. In secondary schools it is truer to say that the pupils are *trained* rather than instructed or taught. Permeating the whole system is the worship of "good form." Good form is demanded of everybody; both teachers and scholars must play the game squarely or suffer social ostracism. It is good form, for example, to play games, to take a matutinal cold bath, to take classics rather than science ("stinks" is the illuminating slang for chemistry and its sister subjects), and to profess indifference to serious study. It is bad form to tell tales; worse form to tell lies, to lose one's temper, or play a dirty game on the football field, or to show oneself a bad loser. While beneficent in its broader workings, the worship of good form is conducive to subtle forms of intellectual cowardice, since it is easier to conform than to run counter to the prevailing standards of the school.

In the second place, English elementary and secondary education do not form a continuum as they do in North America, but are parallel and overlap in the matter of pupils' ages as much as five years. To a large extent also the pupils attending them represent different social strata. The sons of professional men and the aristocracy never or seldom attend public elementary schools, but receive their preliminary education in private preparatory schools. The children of artisans as a rule only find their way into secondary schools through the media of free places and competitive open scholarships. These scholarship pupils are the intellectual élite of the working and lower middle classes. The freer intermingling of the classes and masses has made English education more democratic, although complaints are frequently made that it has tended to destroy the finer traditions of many ancient schools.

A wrong impression will be given if the reader thinks that games take priority over studies in the majority of schools. This is far from being the case. The English appreciation of genius wherever found and the lure of the ubiquitous scholarship prevent the neglect of promising pupils. A clever boy in a school is not merely tolerated; he is secretly envied, and should he be fortunate enough to win some coveted open scholarship he may become as much an idol to his companions as the captain of a team. Where England fails is in the comparative neglect of mediocre talent. The boy of average capacity does not receive the relative stimulus that he does in Germany, and a real wastage of the nation's strength is the unfortunate result.

Recent Reorganisation.—The reorganisation which has taken place during the past two decades is the result of many efforts. Most profound in its influence was the Royal Commission on Secondary Education, under the chairmanship of Mr. Bryce, which sat in 1894 and 1895. The commissioners discovered an unsatisfactory state of affairs and made many recommendations of far-reaching importance. On the whole they inclined to the view that it was better to strengthen existing secondary schools than to destroy weaker forms by the creation of brand-new, up-to-date types. Their policies have been gradually carried out to the great benefit of English education as a whole. Following this commission the Education Department in 1897 made its first census of secondary schools. Unfortunately for England the experiment has never been repeated. Included in the census were no less than 6209 schools, but of these 1423 had no pupils over the age of fourteen. There were 1958 schools for boys, 3173 for girls, and 1078 co-educational schools. The schools educated 291,544 pupils—158,502 boys and 133,042 girls, amounting to 5.4 and 4.5 per thousand respectively of the total population. Practically all the schools lay outside the jurisdiction of the Education Department. Over ninety per cent. of the pupils were found to be under sixteen years of age. The staffs were proved to be inadequate for the tasks assigned to them and, frankly speaking, thousands of schools were discovered passing themselves off as secondary though the work they were doing was, at best, but second-rate preparatory. The time was plainly ripe for placing secondary education under some form of central control. This was accomplished in two stages. First, the Board of Education was created, which consolidated into one organisation the existing Education Department and the Science and Art Department. Secondly, the comprehensive Education Act of 1902 was passed, which unified, by placing under common control, all forms of education—elementary, secondary, technical, and others.

Types of Schools.—Exclusive of private adventure schools run with the sole aim of profit to the headmaster owning them, four main types of secondary schools, each type again exhibiting minor variations, may be recognised:

(1) The so-called public schools.
(2) The grammar schools for boys.
(3) The high schools for girls.
(4) The municipal or county secondary schools, usually co-educational.

(1) The English public schools, especially the nine great public schools [1]—Eton, Harrow, Rugby, Winchester, Westminster, Charterhouse, Merchant Taylors, Shrewsbury, and St. Paul's—enjoy a world-wide reputation. In spite of many patent defects they have made a unique contribution to education, and are at once the envy and despair of many countries affecting to despise them. Of first-grade schools there are about sixty. They became very popular in the middle of the nineteenth century, after the epoch-making work of Arnold at Rugby. According to Norwood and Hope (in *Higher Education of Boys in England*) this popularity was due to a number of causes. "The good and sufficient causes are (1) the unique training of character which the regenerated boarding-school could offer, and which the day school is only recently beginning to develop; (2) the growth of the empire with the necessity for boarding-schools for parents living out of England; (3) the similar need felt by the country gentry and clergy; (4) the generally disgraceful condition of the local grammar schools before 1870; (5) the introduction of railways

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[1] An American wag, commenting on the name English Public Schools, said that they were called English because they taught so much Latin, Public because they were private, and Schools because two-thirds of the time they taught nothing but games.

making travelling easy; (6) the rapid increase in the number of incomes between £500 and £1000. The less satisfactory causes are (1) a heightened sense of class distinction, especially among the *nouveaux riches*, leading to snobbish imitation of the practice of the aristocracy; (2) an increasing proneness to shirk the trouble of keeping boys at home and collaborating with a day school in their education; (3) the growing fetish-worship of games which can best be indulged where they have been given precedence over work; (4) the thoughtless following of fashion."

The public schools are invariably boarding-schools, though few are exclusively so, since boys from the immediate neighbourhood of the school are admitted as day pupils. The curriculum still remains predominantly classical, although since Arnold's reforms the sciences, mathematics, and modern languages have received a fairer share of attention. The pupils usually enter at twelve or thirteen years of age, having spent the previous three or four years in a preparatory school, where they make a beginning with languages, science, and mathematics. The high fees (£80—£100 on the average for board and tuition) make the schools exclusive. The salary paid to the headmaster may be reckoned in thousands of pounds (one headmaster receives a bigger salary than the President of the United States); the salary paid to an assistant in hundreds only. The disparity between the salaries of assistants and the headmaster is more than a curious anomaly of school life; it is a blight affecting the whole public-school system. Although the schools educate some 20,000 boys they touch the masses of the people at remarkably few points.

(2) The grammar schools for boys are for the most part endowed schools of old foundation. They are generally publicly managed and exhibit the traditional spirit of the public schools. What distinguishes them from the latter is the fact that, being day schools, they take on a local tone and character. They are cheaper and less exclusive than the public schools. They are also far more numerous. Moreover, forty of them have achieved such close connection with the older universities that they are represented in the Headmasters' Conference, a somewhat exclusive body of headmasters of those schools which send a goodly proportion of their boys forward to Oxford or Cambridge. Coming into closer contact with the life of the home and the city they reflect more readily the changing conceptions of education held by the people. Consequently they provide a more varied intellectual fare for the pupils. Few of them can be called classical

schools, although Latin and Greek hold important places in the curriculum. Some indeed have modernised themselves to such an extent that industrial and commercial courses figure prominently on their schemes of study. Through this acceptance of local and government grants they are passing under the control of councils and of the Board of Education.

(3) A high school for girls, according to Miss Burstall, "is by genus a school giving girls a secondary education, generally under some degree of public control; that is, it is not conducted by an individual for private profit. It belongs as a rule to some corporate body, company, trust, local education authority, board of governors, etc., who own or rent the building, engage, pay, and dismiss the staff, receive the fees through a clerk or other official, and are generally responsible for the management."

Girls' high schools in origin are the educational reflexes of the mid-nineteenth-century movement for the emancipation of women. At first they were patterned somewhat closely after the corresponding grammar schools for boys, but gradually the women pioneers learned that domestic science could be made as truly educational as Latin or algebra. Their curricula at the present time are much less conservative than those of the corresponding grammar schools. Since women fought their way to recognition in the universities of Oxford and Cambridge, schools have become far more numerous. The newer universities are now affecting them, generally in the way of making them more radical in outlook and methods. Like the grammar schools, they are day schools and retain close contact with the homes and the city. Practically all receive grants from the Board of Education and comply with the regulations governing secondary schools.

(4) Municipal and county secondary schools are a direct result of the Education Act of 1902. This act, it will be remembered, placed upon local authorities the duty of supplying secondary education within their areas. County and municipal councils from the beginning set about the task in a vigorous way, with the result that the provision of facilities for secondary education has increased enormously. The number of secondary schools receiving grants from the Board has increased twenty-fold since 1902, and the majority of the new schools are owned and managed by councils. These county and municipal secondary schools correspond more closely than the other types of English secondary schools to the high schools of America. If the public schools

are for the classes, then these council secondary schools may be said to be for the masses. They have not quite settled down into the scheme of things. They have suffered two disabilities from the start. In the first place, the only models which they could copy were the endowed schools with rather conservative views about education. In the second place, they are supported and managed by the municipality or county which tended to impose upon them the rather restrictive oversight they gave to elementary schools under their control. They are, however, destined to play a most important part in English education, and will, in time, become the main type of secondary school.

The schools are almost invariably co-educational. Their pupils are drawn from elementary schools and their staffs mainly from the newer universities. On the whole they represent a humbler social status than the schools previously mentioned, but their pupils and teachers are aggressive and ambitious, determined to make names for themselves and the schools to which they are attached. In this spirit lies the future hope of England.

(5) Two other types of school remain to be mentioned, first, the preparatory school and, second, the private secondary school. Most of the residential schools have one or even several preparatory schools attached to them. In some cases the bond is that of affiliation. The best preparatory schools are excellent and the education given in them and the conditions of service are as good as in the best secondary schools. There are, however, a great number of private preparatory schools which are badly equipped and poorly staffed and exhibit all the evils of private adventure schools. In this same category must also be placed many thousands of struggling private secondary schools. It would be untrue to say that all of them are bad; it is true to say the majority are. Legislation, imposing more stringent regulations upon them, is urgently needed, not only to protect the helpless teachers in such schools, but also to protect the public at large.

Secondary-School Accommodation.—It is impossible to state just how many children in England are receiving secondary education. This is due to the laxity or cowardice of the Board, which has failed to secure returns from private schools, although such powers were plainly granted by the Education Act of 1902. Norwood and Hope give the figures for boys as far as they are able to estimate them. In 1909 their tabulation ran as follows:

	Boys.
(*a*) In first-grade public schools, chiefly boarding	18,000
(*b*) In first-grade schools, public and endowed, chiefly day	13,500
(*c*) In second-grade endowed schools	50,000
(*d*) In municipal and county schools	25,000
(*e*) In schools under the control of companies or supported by religious bodies, not included in (*a*)	9,500
	116,000
(*f*) In private preparatory schools—the proportion receiving the earlier stages of first-grade secondary instruction	6,000
(*g*) In other private schools, for boys and "mixed," of a quite uncertain character	52,000
	174,000

The Board of Education's figures are more reliable, although they only deal with schools receiving grants and with those certified by it as efficient. In 1914 they were for England and Wales as follows:

Secondary Schools under the Board of Education, 1914

I. Number:	
(*a*) Schools for boys	397
(*b*) Schools for girls	349
(*c*) Schools for boys and girls	281
(*d*) Total	1,027
II. Classification:	
(*a*) Council schools	433
(*b*) Roman Catholic schools	45
(*c*) Foundation and other schools	450
(*d*) Welsh intermediate schools	99
	1,027
III. Number of Teachers:	
(*a*) Men	5,447
(*b*) Women	5,377
(*c*) Total	10,824
(*d*) Part-time teachers (counted once only)	3,418
IV. Number of Pupils:	
(*a*) Boys	99,171
(*b*) Girls	88,036
(*c*) Total	187,207
V. Age of Pupils:	
(*a*) Under 12	35,666
(*b*) 12 and under 16	127,740
(*c*) 16 and under 18	21,437
(*d*) 18 and over	2,364
(*e*) Total	187,207

Secondary Schools under the Board of Education, 1914—(*continued*)

VI. Number of Part-time Pupils :	
(*a*) Student-teachers	2,727
(*b*) Pupil-teachers	2,545
(*c*) Other part-time pupils	530
(*d*) Total	5,802
VII. Efficient Schools not on Grant List :	
Number of schools	121
Number of pupils:	
(*a*) Boys	13,618
(*b*) Girls	8,928
	22,546

Teachers.—The teachers in the public schools are usually university graduates without any professional training. They have been educated first in a public school and afterwards at Oxford or Cambridge, and consequently carry on the public-school tradition from generation to generation. Some few of them are beginning to realise that a year of professional training need not impair their teaching capacity. The headmasters are often clerks in holy orders, but even this traditional arrangement is sinking into desuetude. The assistants are badly paid and have to be allowed to add to their incomes by private coaching or by becoming housemasters and taking the profits of their boarding establishments.

The teachers in the grammar schools for boys are also in the main graduates either of Oxford or Cambridge. But in these schools graduates from the newer universities have won a place for themselves and class barriers are rapidly falling away. As the scholars from this type of school still look towards Oxford and Cambridge for their university education, the leavening of the staff by the newer trained type of teacher has not proceeded as far as it might otherwise have done.

The leaders in the girls' high-school movement were educated at Girton, Newnham, or Somerville, and this gave the stamp to the earlier type of teachers. In recent years, however, the schools have largely been staffed with graduates from the newer universities. From the first the women teachers have recognised the value of professional training more than the men.

The teachers of the council schools are for the most part the product of the newer universities. The bulk of them are trained; many, indeed, are ex-elementary teachers who have passed through university training colleges. They may not be so good at games as their *confrères* of the public and grammar schools, but they are infinitely more efficient in the classroom. If England could evolve a type of teacher with the virtues of both of the classes she would indeed be happy.

The headmaster of a secondary school exercises very wide powers. In his hands largely lies the appointment and dismissal of teachers, the framing of the curriculum, and the arrangement of the time-table. Sometimes these powers are abused. Since the passing of the Endowed Schools (Masters) Act in 1908 the lot of the assistant master has been much more comfortable; he cannot now be dismissed without due notice or on insufficient grounds, merely on the whim of an irate headmaster or governing body.

Some idea of the salaries earned by secondary teachers can be gathered from the subjoined table. The statistics refer only to schools which are in receipt of government grants. The public schools exhibit similar tendencies, though in a much more aggravated form.

	Council schools.		Girls' public day trust schools.		Roman Catholic schools.		Foundation and other schools.	
	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.
1. *Head teachers:*								
Number . .	221	151	—	28	11	35	330	93
Average salary (£)	390	287	—	394	210	166	493	398
2. *Assistant teachers:*								
Number . .	1,655	2,136	—	371	92	373	2,275	1,355
Average salary (£)	167	127	—	120	129	90	175	125

There are two defects in English secondary-school teachers' salaries. In the first place, there is much too great a disparity between the salaries of assistants and head-teachers. The latter are very good, but those of the assistants are much below a comfortable level for persons of their social status and training. A secondary assistant master usually cannot afford to marry, and if he does, he cannot provide adequately for the education and general upbringing of his children. The latter are necessarily on a lower economic plane than he was before them. This discouraging feature militates against the really good man risking the teaching profession for his livelihood, for only a very small proportion can possibly obtain the prizes of head-teacherships. The second drawback is that maximum salaries are reached too early in life. The increments, instead of decreasing or ceasing altogether, should rather increase with age, as responsibilities connected with the education of children are greatest when the man is between forty-five and fifty-five years of age. As at present constituted the automatic increases of salary scales seem to stop after ten to fifteen years of service. But the Fisher grants will produce improvements.

Pensions.—There is no state pension for secondary teachers in England. The scheme as planned has gone by default owing to the outbreak of the war. The departmental committee which worked on the problem made the following recommendations:

That for teachers in secondary and technical schools and institutions, schools of art, colleges and schools for the training of teachers, pupil-teacher centres, and other schools and institutions (not being universities or university colleges) which are aided by grants from the Board of Education, there should be established "a system of insurance for full-time teachers similar to that which has been established in the federated universities, and supported by contributions both from the teachers themselves and from their employers; and we recommend that, separate from and additional to the benefits derived from these insurances, there shall be state assistance in the form of superannuation and disablement allowances; the superannuation allowances to be of the same amounts and under the same conditions as those granted to elementary-school teachers under the Elementary-School Teachers (Superannuation) Acts of 1898 and 1912; and the disablement allowances to be at the rates hereinafter set out (£1 for each complete year of service, with a minimum service of ten years), but otherwise granted under the conditions applicable to the disablement allowances for elementary-school teachers."

The main features of the federated universities' superannuation system are as follows: "Annual contributions are to be made in respect of all members of the teaching and administrative staffs within certain salary limits employed in the universities and other institutions concerned, and these contributions are to amount in all to 10 per cent. of the salary. The institution is to contribute at least 5 per cent. of the teacher's salary, but may contribute more, and the teacher himself is to find the balance of the contribution. The contributions are as a general rule to be applied by the governing body to the payment of a premium on an insurance policy. The teacher is, within certain limits, free to choose between the kind of benefits to be insured by this policy and the insurance company from which it is to be obtained. . . . A common feature of all these policies is that they include an annuity on reaching the age at which the benefit matures, or, so far as the governing body think desirable in each case, an equivalent cash payment; and all policies are to mature at sixty."

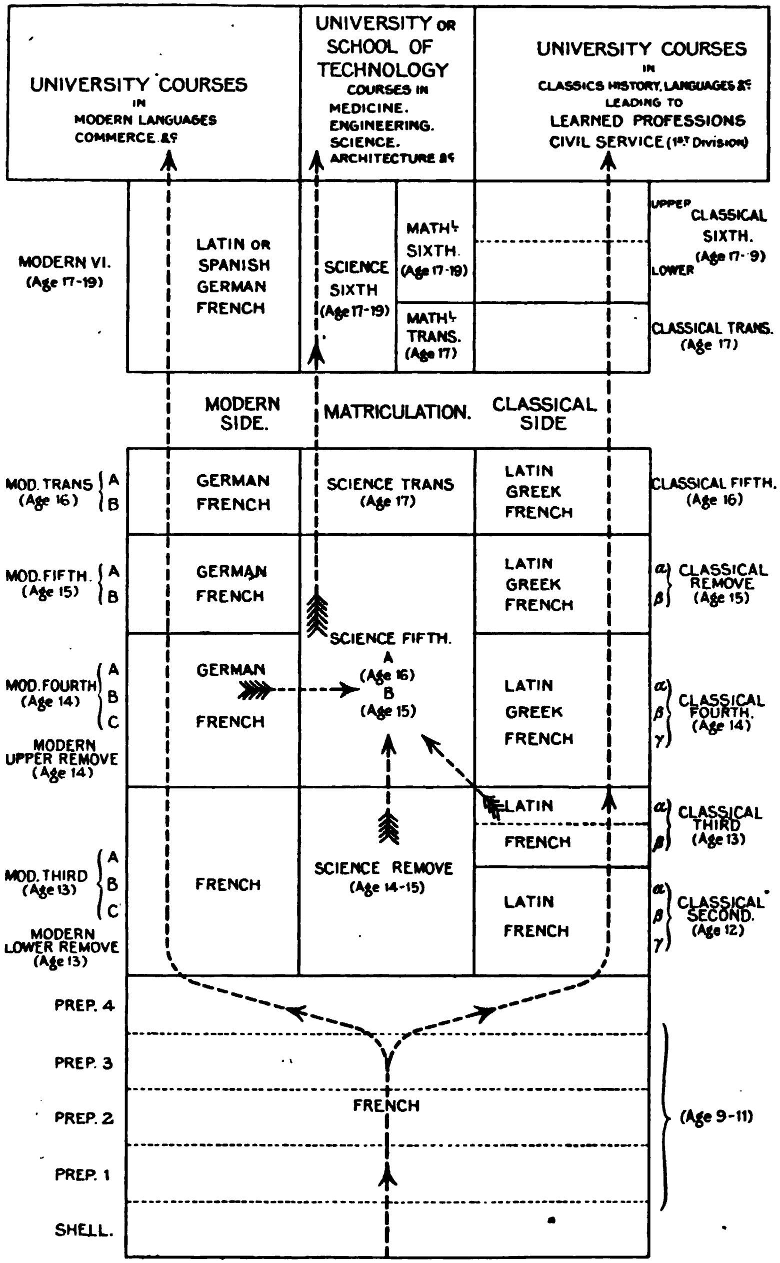
As soon as more settled conditions obtain the scheme will undoubtedly be put into operation, after which England will be able to boast that she has a state pension for every teacher in her educational institutions receiving aid from government. The present local schemes for pensioning secondary teachers are not only inadequate, but are anti-national, since they prevent free migration of teachers from one area to another.

Organisation and Curriculum.—An English secondary school is ordinarily organised to provide an education for pupils between the ages of twelve and eighteen. The entrance of pupils at nine or ten years of age is now discouraged, especially in the larger boarding schools, as it is considered better policy to educate the younger children in preparatory schools. The Board's regulations for secondary schools state that:

> In order to be recognised as a secondary school within the meaning of these regulations, a school must offer to each of its pupils a progressive course of education of a kind and amount suitable for pupils of an age-range at least as wide as from 12 to 17. Provision made for pupils below the age of 12 must be similarly suitable, and in proper relation to the work done in the main portion of the school.
>
> A school will not be recognised as a secondary school unless (i) an adequate proportion of the pupils remain at least four years in the school up to and beyond the age of 16.

A feature of English organisation, which contrasts strongly with the practice in Germany, is that of maintaining in one school the various specialised courses—moderns, classics, mathematics, science, and history—whereas in Germany a separate school is organised for each of the special courses. The customary policy is to plan a general course which all pupils take up to fourteen years of age, after which they begin a certain amount of specialisation which increases in degree as they pass up the school. The following diagram which illustrates the organisation of courses in the Manchester Grammar School for boys gives a fair indication of the manner in which the English secondary schools attempt to solve the problem of arranging courses suitable to the diverse needs of many pupils. Small schools, of course, cannot provide so many courses, but even the smallest attempts two or three separate courses from which the pupils may make a selection.

DIAGRAM SHOWING THE ORGANISATION OF COURSES IN THE MANCHESTER GRAMMAR SCHOOL


UNIVERSITY COURSES IN MODERN LANGUAGES COMMERCE &c
UNIVERSITY OR SCHOOL OF TECHNOLOGY COURSES IN MEDICINE. ENGINEERING. SCIENCE. ARCHITECTURE &c
UNIVERSITY COURSES IN CLASSICS HISTORY. LANGUAGES &c LEADING TO LEARNED PROFESSIONS CIVIL SERVICE (1st Division)
MODERN VI. (Age 17-19)
LATIN OR SPANISH GERMAN FRENCH
SCIENCE SIXTH (Age 17-19)
MATHL SIXTH. (Age 17-19)
MATHL TRANS. (Age 17)
UPPER CLASSICAL SIXTH. (Age 17-19) LOWER
CLASSICAL TRANS. (Age 17)
MODERN SIDE.
MATRICULATION.
CLASSICAL SIDE
MOD. TRANS (Age 16) A B
GERMAN FRENCH
SCIENCE TRANS (Age 17)
LATIN GREEK FRENCH
CLASSICAL FIFTH. (Age 16)
MOD. FIFTH. (Age 15) A B
GERMAN FRENCH
LATIN GREEK FRENCH
α β CLASSICAL REMOVE (Age 15)
SCIENCE FIFTH. A (Age 16) B (Age 15)
MOD. FOURTH (Age 14) A B C
MODERN UPPER REMOVE (Age 14)
GERMAN FRENCH
LATIN GREEK FRENCH
α β γ CLASSICAL FOURTH. (Age 14)
LATIN FRENCH
α β CLASSICAL THIRD (Age 13)
MOD. THIRD (Age 13) A B C
MODERN LOWER REMOVE (Age 13)
FRENCH
SCIENCE REMOVE (Age 14-15)
LATIN FRENCH
α β γ CLASSICAL SECOND. (Age 12)
PREP. 4
PREP. 3
PREP. 2
PREP. 1
SHELL.
FRENCH
(Age 9-11)

The fourth and all forms above the fourth constitute the upper school; the forms below the fourth are the lower school.

The curriculum of a recognised school must be approved by the Board. As in other branches of English education, great freedom is granted to each school in order to utilise the teaching talent of the staff, and to meet varying local needs. Each school, however, must provide instruction in the English language and literature, at least one language other than English (if two foreign languages are provided Latin must ordinarily be one of them), geography, history, mathematics, science, and drawing. Schools for girls must also provide instruction in domestic subjects such as needlework, cookery, laundry-work, housekeeping, and household hygiene. Further, no school is recognised unless it makes adequate provision for organised games, physical exercises, manual instruction, and singing. In a few of the larger schools for girls, secretarial courses have been successfully introduced. Correspondingly, in schools for boys commercial courses are becoming fairly common.

The Board is anxious to promote experiments both in regard to organisation and methods of teaching. Under its regulations it has, for a number of years, made special grants for experimental and pioneering work in the case of—

(*a*) Cambridge, Perse School for Boys, for a new oral method of teaching the classics;

(*b*) Knaresborough Secondary School, for a course specially designed to meet the needs of boys or girls who are destined for rural or agricultural occupations;

(*c*) Manchester High School for Girls, for a course of secretarial work for girls who intend to take up secretarial business on leaving school;

(*d*) James Allen's Girls' School, Dulwich, for an experiment in the teaching of botany;

(*e*) Sexey's School, Blackford (Somerset), for an experimental course in agriculture where instruction is given in connection with the practical working of a small holding.

Owing to the great variability in practice among secondary schools, it is impossible to give a curriculum typical for the country as a whole. In order to give the reader some idea of what is aimed at, several curricula are herewith printed. Those for boys are taken from Norwood and Hope's *Higher Education of Boys in England;* those for girls from Miss Burstall's *English High Schools for Girls.*

Suggested Curricula for the Two Types of School

(1) Higher Secondary School, preparing for the Universities

	Below course.		Lower course.				Classical specialists.			Other specialists.[6]		
Average age of boys	10	11	12	13	14	15	16	17	18	16	17	18
Divinity	[1] 1	1	1	1	1	1	1	1	1	1	1	1
English	6	6	3	3	2	2	3	2	2	3	2	2
Latin	—	—	6	6	6	6	15	20	22	3	3	3
Greek	—	—	—	—	[2] 6	6	—	—	—	[2] 4	4	4
French	6	6	5	5	3	3	3	[4] 3	2	3	3	2
German	—	—	—	—	[2] 6	6	—	—	—	[2] 4	4	4
History	3	3	2	2	2	2	[5] 3	3	3	[5] 3	3	3
Geography	2	2	2	2	2	2	—	—	—	—	—	—
Mathematics	6	6	6	6	5	5	5	3	2	14	16	17
Science	—	—	[3] 3	3	—	—	—	—	—	—	—	—
Nature study	3	3	—	—	—	—	—	—	—	—	—	—
Writing	1	1	—	—	—	—	—	—	—	—	—	—
Drawing	2	2	2	2	2	2	—	—	—	1	—	—
Manual training	2	2	2	2	—	—	—	—	—	—	—	—
Total periods per week	32	32	32	32	32	32	32	32	32	32	32	32

Each period has an average duration of 45 minutes.

[1] Another period will be given to divinity on Sundays in boarding schools.

[2] Greek and German are alternative subjects.

[3] A bracket between two subjects means that the periods can be distributed according to need.

[4] German, instead of French, may be taught in the two top classical forms.

[5] In the last three years classical boys will give two-thirds of their time to classical, and one-third to modern, history; modern boys the reverse.

[6] History and modern-language specialists will have time assigned from the periods given to mathematics and science.

Civics will be taught in a period taken from an English subject.

Hygiene in a period taken from science or mathematics.

(2) MUNICIPAL SECONDARY SCHOOL, PREPARING FOR COMMERCE AND INDUSTRY

	Below course.		Lower course.				Higher course.			
Average age of boys	10	11	12	13	14	15	16	17	18	
Divinity	1	1	1	1	1	1	1	1	1	
English	6	6	3	3	3	3	[3] 4	4	4	(+2) [4]
French	6	6	5	5	5	5	5	5	5	
German	—	—	[2] 6	6	5	5	5	5	5	
Latin	—	—	[2] 6	6	5	5	5	5	5	
History	3	3	2	2	2	2	4	4	4	
Geography	2	2	2	2	2	2	—	—	—	
Mathematics	6	6	6	6	6	6	5	5	5	
Science	—	—	3	3	4	4	5	5	5	(+5) [5]
Nature study	[1] 3	3	—	—	—	—	—	—	—	
Writing	1	1	—	—	—	—	—	—	—	
Drawing	2	2	2	2	2	2	1	1	1	(+2) [4]
Manual training	2	2	2	2	2	2	—	—	—	
Total periods per week	32	32	32	32	32	32	32	32	32	

Each period has an average duration of 45 minutes.

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[1] A bracket between two subjects means that the periods can be distributed according to need.

[2] Latin and German are alternative subjects.

[3] One of the English periods during the last three years might well be devoted to the study of classical history and of classical literature in translations.

[4] Two extra periods to be assigned to English or drawing, at the option of the boy, in the higher course.

[5] Five extra periods may be assigned to science, as an alternative to keeping up a second language in the higher course.

Civics will be taught in a period taken from an English subject.
Hygiene in a period taken from science or mathematics.

Curriculum of a Secondary School for Girls

Five years' course, ten to fifteen, before specialisation begins. Morning session of thirty to twenty-six periods a week, of varying length, total eighteen to nineteen hours in class.

A Forms

Years	I.	II.	III.	IV.	V.
Forms	Lower II.	Upper II.	Upper III.	Lower IV.	Upper IV.
Ages	10–11	11–12	12–13	13–14	14–15
Divinity	3	3	2	2	2
English	5	5	4	3	3
Geography Correlated	2	2	1	2	1
History	1	2	2	2	2
Arithmetic	5	4	2	2	1
Geometry Correlated	—	1	2	2	2
Algebra	—	—	2	2	2
French	5	5	3	4	3
Latin or German	—	—	5	4	4
Nature study and biology	1	2	2	—	2
General elem. science	—	2	—	2	2
Sewing	2	1	Afternoon in one	work: co year.	mpulsory
Drawing	1	2	2	—	1
Singing	2	1	Afternoon	work: vo	luntary.
Gymnastics	3	2	1	2	1
Games			Voluntary	in aftern	oons.
Total	30	30	28	27	26

B Forms

Years	I.	II.	III.	IV.	V.
Forms	Lower II.	II.B	III.B	Lower IV.B	Upper IV.B
Ages	(as A F	orms)			
Divinity	3	3	2	2	2
English	5	5	5	5 (3)	4 (3)
Geography Correlated	2	2	2	2	2
History	1	2	2	2	2
Arithmetic	5	4	5	3	2
Geometry	—	—	—	2	2
Algebra	—	—	—	—	2
French	5	5	5	5 (3)	4
German	—	—	—	(5)	(4)
Nature study	1	2	2	2	—
Domestic science	—	—	—	2	2
Drawing	1	2	2	—	2 (0)
Sewing	2	1	Afternoon	work: vo	luntary.
Singing	2	1	1	After work: vo	noon luntary.
Gymnastics	3	3	2	2 (1)	2 (1)
Games			Afterno	ons: volu	ntary.
Total	30	30	28	27	26

In fourth and fifth years periods bracketed allow for optional German.

Higher secondary elective courses: specialisation begun. For matriculation 2–3 years, 15–17 or 18, according to ability and progress of pupil.

	Compulsory subjects.		Optional subjects.			Remarks.
Number of weekly lessons:	4.	5–6.	4.	4–5.	4.	
I. (*a*) For arts pupils, leading to B.A. degree	English literature and history	Mathematics, geometry, algebra, arithmetic	French	Latin	Geography, including scientific side of subject	For general culture.
(*b*) For arts pupils, leading to B.A. degree	English literature and history	Mathematics, geometry, algebra, arithmetic	"	"	German	For modern-language and music students.
(*c*) For arts pupils, leading to B.A. degree	English literature and history	Mathematics, geometry, algebra, arithmetic	"	"	Greek	For classical students.
II. For science pupils, leading to B.Sc. degree	English literature and history	Mathematics, geometry, algebra, arithmetic	One language (preferably German)	Chemistry	Biology or physics	French to be dropped at 15. Girls generally take biology.
III. For intending primary or junior forms teachers	English literature and history	Mathematics, geometry, algebra, arithmetic	Latin or French	Chemistry or biology	Geography	Abler girls take Latin. Second option easy; not ideal.
IV. For commerce, or weak students in arts or science	English literature and history	Mathematics, geometry, algebra, arithmetic	French	German	Geography	An easy option, but useful.

Middle-School Curriculum for Girls

Twenty-eight lessons per week, not including religious instruction and physical training. A short afternoon session and comparatively little homework.

First year. Age 12–13.	Second year. 14–16.	Third year. 14–15.	Fourth year. 15–16.		
Humanities: History, 2 Geography, 2 Literature, 2 Composition } 4 Grammar } 4 Reading, etc. } 4	Same as 1st year	History, 2 Geography, 2 Literature and composition, 3 (Extra English, 4)	History, 2 Geography, 1 or 2 Literature and composition, 3 (Extra English, 3)		
Languages: French, 5	Same as 1st year	French, 4 German or extra English, 4	French, 3 or 4 German or extra English and French, 4		
Science: Arithmetic and elementary algebra, 4 Elementary physics, 2 Nature study, 2	Arithmetic, 4 Geometry, 2 Nature study, 2	Arithmetic and mathematics, 5 Science, 4	Domestic arts course: Domestic science, 2 Arithmetic, 2 Hygiene, 2	Business course: Arithmetic, 3 Knowledge of wares, 2	Intending pupil-teachers' course: Arithmetic and mathematics, 7 Science, 3
Other subjects: Sewing, 2 Drawing, 2 Singing, 1	Same as 1st year	Sewing and cookery or commercial subjects, 3 Art, 2	Cookery and household management, 7 Art, 2	Bookkeeping, correspondence, etc., 7 Art, 2	Geography, 1 Sewing, 2 Drawing, 2

Scholarships and Free Places.—The English secondary school is not free in the sense that the American high school is free. The fees charged are often beyond the limit that the working classes can afford. Yet many pupils of humble circumstances pass through both the secondary schools and universities. This is made possible by a very generous provision of scholarships and what are known as "free places." A secondary school, in order to secure recognition by the Board, must provide, to the extent of twenty-five per cent. of its accommodation, free places for pupils entering from the elementary school. A free place carries with it free tuition for the full term of school life. The governing body of the school may provide a free place either by remission of the fee or by admission of a pupil holding a scholarship which at least covers the fee. (The scholarships for secondary schools often cover the cost of tuition, books, transportation, and maintenance.)

This regulation of the Board has caused considerable trouble. Schools there were which claimed that such a percentage of free places caused the school to lose its distinctive characteristics and placed an undue burden upon it. It is, therefore, the practice of the Board to reduce the requirement regarding free places in cases where it can be shown that it adversely affects the work and character of the school. Out of 910 schools in 1914, 105 were allowed to accept a lesser percentage of free-placers than twenty-five.

In spite of the provision of free places, the school life of the average secondary pupil is lamentably short. The following comparative figures of the Board prove this contention:

Sex of pupils.	1907–10.		1908–11.		1909–12.		1910–13.	
	School life.	Leaving age.	School life.	Leaving age.	School life.	Leaving age.	School life.	Leaving age.
	Years &	months.	Years &	months.	Years &	months.	Years &	months.
Boys .	2 7	15 6	2 8	15 7	2 8	15 7	2 9	15 7
Girls .	2 7	16 0	2 9	16 0	2 10	16 0	2 11	16 0

Finance of Secondary Education.—The main sources of income for the support of secondary education are (1) residue grants, commonly called whiskey money; (2) parliamentary grants; (3) rates and borough funds; (4) fees and sale of books and other articles.

The residue grants are those moneys which remain from certain duties on spirits and beer after a sum of £300,000 has been deducted for police superannuation. They originated in a peculiar way. In 1890 a temperance measure was introduced into Parliament, which failed to receive its sanction. In anticipation of its success certain financial adjustments had been made by the government. The party in power found itself, therefore, with certain moneys from whiskey duties which had already been discounted. These moneys were, therefore, devoted in part to superannuation of the police, in part to higher education, and so they are disposed of to this day.

The parliamentary grants are made on a per capita basis. They are paid at the rate of £2 for each pupil between ten and twelve years of age, and £5 for each pupil between twelve and eighteen years of age. Since 1913 the Board has paid an additional grant of £1 a head on pupils between fifteen and eighteen years of age in secondary schools which offer twenty-five per cent. of free places to pupils from elementary schools. The principle is thus established of paying at a higher rate for older pupils. This practice should be further extended in order to keep pupils in school beyond the present average leaving age of sixteen. As the best age for transference from the elementary to a secondary school is from eleven to twelve, the grants for pupils below eleven could, with profit, be discontinued. In 1917 the secondary education grants are to be materially increased, in fact almost doubled, in order that the assistant teachers may be better paid and that valuable though expensive forms of education may be undertaken.

The local rate for higher education, which includes technical, art, and evening classes, is limited to 2d. in the pound, unless sanction for a higher rate is obtained from the Local Government Board. Frequent requests for the removal of the limit have been made by local authorities, owing to the rapidly increasing cost of secondary education, and the requests have usually been granted. Lancashire, for example, has now a higher education rate of 3¾d.; Dorsetshire, on the other hand, a rural county, levies only a farthing rate (a mill), and this was not needed before 1914.

The fees charged vary widely. They range from less than a guinea to twenty guineas, eighty per cent. falling between three and ten guineas. The fees in council schools average £5.75 in schools for boys, £5.4 in schools for girls, and £3.8 in co-educational schools. In foundation schools the corresponding average fees are £7.45, £7.7, and £4.95.

Generally speaking the rates and grants provide about eighty per cent. of the total receipts, while fees provide half the remainder. Many of the public schools which are under private management are paying their way rather by the fees paid for board than those for tuition. The first-grade boarding schools with 20,000 pupils charge fees which in the aggregate amount to £1,500,000.

Leaving Examinations.—While there are no secondary-school examinations bearing the above title, the numerous examinations granting entrance to the universities, as well as the innumerable scholarship examinations, ninety in all, partake of the character of leaving examinations, since they can only be taken by pupils who have completed, or nearly completed, a full secondary-school course. As a matter of fact, the English secondary school is examination ridden. After an exhaustive inquiry into the matter through its Consultative Committee in 1911, the Board, in circular 849, embodied proposals which in effect are as follows:

(1) To establish in every secondary school recognised for grants two new external examinations of grades suitable for sixteen and eighteen year old pupils respectively, to be taken annually in every school and to be conducted by a university, but the standard to be fixed by the Board of Education and to be substantially equivalent throughout the country.

(2) To reserve the right of prohibiting every such secondary school from preparing pupils for other external examinations, except with the special permission of the Board of Education.

These examinations are obviously modelled upon the plan of the two state leaving examinations of German secondary schools. While there is no doubt of the existence of a very serious evil in the multiplicity of examinations which secondary pupils may take, it is a matter for debate whether or not the remedy proposed is the best which can be found. At the present time the prescriptions of the various universities are so diverse—one, for example, requiring Latin, another a modern language or a particular science, for entrance to a particular faculty or the university itself—that unless the Board can prevail upon the universities to accept its examinations the only result will be the addition of two more examinations to the already overcrowded list. The writer's experience with state examinations in Germany and Canada leads him to believe that the plan, if adopted, will so crystallise the curriculum of secondary schools that diversity, a most desirable thing in schools, will become a thing of the past. The best remedy, it would appear, is the gradual consolidation, with accompanying state-wide recognition, of examinations already in existence. As illustrations of what is possible in this direction, the cases of the joint matriculation examination of the northern universities and the work of the Central Welsh Board may be cited.

IX. TRAINING OF TEACHERS FOR SECONDARY SCHOOLS

The first attempt to deal with the training of secondary teachers in England was made in Queen's College, London, about 1850. Each professor issued on his own authority certificates of competency in his own branch to students duly attending the lectures. The College of Preceptors first granted diplomas to secondary teachers in 1854, a practice it has continued to the present day. From 1873 it has organised courses of lectures on teaching. A fairly successful attempt at training was made by the Teachers' Training and Registration Society, which established the Maria Grey Training College in 1878. Although the work of the college was divided into three parts—lower, higher, and kindergarten—the needs of secondary teachers were kept uppermost and were catered for accordingly. The formation of the Teachers' Training Syndicate by the Cambridge Senate in 1879, which was authorised to arrange for the delivery of certain courses of lectures, the institution of a secondary teachers' diploma examination in 1883 by the University of London, the establishment of the Oxford Delegacy for the training of secondary teachers in 1896, and the consistent advocacy of the policy of training secondary teachers by the Headmasters' Conference and other associations of teachers from the "seventies" onwards, have all contributed to the solution of this difficult problem.

Previous to the Bryce Royal Commission on Secondary Education in 1895 the facilities for training secondary teachers had wholly been provided by private individuals or voluntary organisations, whose field was restricted to women. Very few of the colleges had suitable practising schools under their own direction, and many of them were wholly engaged in the preparation of candidates for external examinations. The commission recommended that courses of special preparation with both theoretical and practical sides should be established. After examining many witnesses with respect to the relative merits of providing such courses by colleges for elementary teachers already in existence, or by the universities, or as a kind of apprenticeship in a properly appointed secondary school, the commission finally concluded that, on the whole, it would be better for universities to provide the training, although other institutions in the nature of residential colleges should be allowed to co-operate. Such training, wherever given, should only be open to students with high academic attainments and should be entirely professional in character.

The inauguration of the teachers' register in 1902 (discontinued for a number of years, but now revived and reorganised) and the passing in the same year of the Education Act which brought secondary schools under the control of the central authority, both stimulated efforts to provide training colleges for secondary teachers. That the Board were favourable to the movement is shown by the following article, which has appeared in each issue of the regulations for secondary schools since 1905: "Where the Board think fit, they may, on consideration of the teaching staff as a whole, require that a certain proportion of all new appointments shall consist of persons who have gone through a course of training recognised by the Board for the purpose." Since the Board were demanding trained secondary teachers the logic of the situation demanded that they should also provide the necessary facilities. In 1908, therefore, the Board first made grants to certain institutions which trained secondary teachers. The movement has widened considerably since its inception, and the position now is that certain diplomas from institutions which receive no grants are recognised as satisfactory by the Board (although it has no lot or part in the control of the course or the examinations) together with all diplomas from the state-aided institutions. More and more institutions are placing themselves under the Board's supervision in return for grants in aid. There are at present three types of secondary training institutions recognised by the Board. The first is the training college, which is a constituent part of a university. In this institution lectures on methods and theory are given by the college staff, while the practice teaching is undertaken in neighbouring secondary schools. The second type centres around the secondary school. The main emphasis is on the practical training, and as but few students can be accommodated even in the largest school, considerable attention can be devoted to each student. The lectures are given by the head-teacher and specially qualified members of his staff. The third type of training institution is really a combination of the foregoing and bids fair to become the dominant type. Here the training college works in close co-operation with a group of secondary schools. The training department is responsible for the theoretical work and the secondary schools for the practical. This seems a wise division of labour; the staff of a training college is well fitted to deliver lectures, while the staff of a secondary school is more competent to deal with practice teaching. The arrangement existing between Rugby and Cambridge University, by which the teacher in training spends two terms teaching under supervision at the school, and a third term at the university for instruction in theory, is somewhat of this nature, although the distance between the two institutions precludes a very close co-operation between the two staffs.

Another feature of secondary training in England is that it must be specialised. The student must train to be a teacher of modern languages, science, mathematics, classics, English, or history. The all-round teacher is not encouraged. The Board's recognition of any particular school for training purposes is restricted to courses in one or more specified subjects. Thus, Exeter Boys' School is limited to preparing teachers of Latin; Exeter Maynard's Girls' School trains teachers of English (with subsidiary Latin), history, modern languages, and science; while Winchester Girls' School trains teachers of French, Latin, and science. Even students in university departments must be given specialist training, and the diploma granted at the conclusion of the course must indicate the subject in which the student is especially qualified. The special study of modern languages is not considered adequate unless the prospective teacher has spent some time in study abroad prior to his year of professional training.

Other points in the organisation which should be noticed are as follows: The college or other training institution is recognised for a definite number of students. In university training departments the minimum is ten; in approved secondary schools the maximum is three. The course of training is a full academic year and no other courses of study may be undertaken contemporaneously. The Board must be satisfied, in every case, that the general management, the adequacy, competency, and salaries of the staff, the courses of instruction and tests of proficiency, the scale of fees, the premises and equipment are such as can be approved. The principal and at least one-half the staff must have had successful practical experience as teachers in secondary schools for a reasonable period. The students must be at least twenty-one years of age and must hold degrees from a British university or other university of equal standing, or some other equivalent qualification. No religious tests are to be made, and no student may be refused admission except on reasonable grounds. The course of study must provide for lectures on the theory of teaching and school management and for teaching practice under adequate supervision. The practice teaching, except for experienced teachers, must extend over sixty days, of which forty must be taken in a secondary school or schools.

The grants payable by the Board are £18 for each student in a training department; and £40 for the first, £30 for the second, and £20 for the third teacher in training in a recognised secondary school. For training colleges a limit of £600 as the total grant for any year, and of one-half the total expenditure upon training, is fixed.

In 1914, twenty-one training colleges were recognised by the Board, and of these fourteen qualified for grants. The number of students taking courses was 180 (143 women, 37 men), of whom 150 obtained diplomas. The total grants from the Board for the same year were £2650. These are but humble beginnings. The significance lies not in the amount of training now undertaken, but in the promise for the future. The barriers of prejudice against training have now been broken down.

X. THE TEACHERS' REGISTER

The Teachers' Register is an official document containing the names and particulars of academic attainments, training, and experience of those teachers who have applied and been accepted for registration. It represents an attempt to unify the teaching profession and to protect the public from exploitation by the charlatan. Any person in England may open a school under the existing law, but no person may practise law or medicine unless provided with the requisite credentials. The register will supply the credentials for the teacher. In course of time the unregistered teacher will find it difficult to obtain a position, and admission to the register will be regarded as a *sine qua non* of permanent service in state-aided schools.

The register has passed through many vicissitudes. The formation of a teachers' register in alphabetical order was one of the duties assigned to the consultative committee as established by the Board of Education Act of 1899. The register as drawn up was in alphabetical order, but, unfortunately, it was also in two columns, A and B, one for elementary, the other for secondary-school teachers.

This division into two classes met with great opposition from elementary teachers. Further, it was argued that the register was not fulfilling the main object for which it was established, namely, the encouragement of secondary teachers to undergo a course of formal training preparatory to a professional career. According to the Teachers' Registration Council Report for 1905, less than twenty men and less than 400 women had undergone a course of training since the inauguration of the register in 1902. Accordingly, the obligation to frame, form, or keep a teachers' register was discontinued by the Education (Administrative Provisions) Act of 1907, "provided that it shall be lawful for His Majesty by Order in Council to constitute a registration council representative of the teaching profession, to whom shall be assigned the duty of forming and keeping a register of such teachers as satisfy the conditions of registration established by the council for the time being, and who shall apply to be registered."

The abolition of the register was considered a grave injustice, amounting almost to a breach of faith, to all those teachers who had registered, and the public confidence in the stability of the policies of the Board was severely shaken. It was pointed out by many teachers' associations that the register had tended to promote the solidarity of the teaching profession, had raised the standard of qualifications of teachers in secondary schools, and had given a prestige to the teachers' calling which had been most helpful in securing a good quality of teacher. The register had provided a state guarantee of efficiency; its abolition left secondary teachers the only professional men and women for whose competency no public authority vouched. Further, it was contended that it had to some extent encouraged the training of secondary teachers, although the period of trial was too short to give very definite results.

Representatives from teachers' associations, after a series of meetings in conference, unanimously adopted a scheme for a New Registration Council. A deputation awaited upon the secretary of the Board of Education with the object of furthering their plan, but the scheme, though fairly representative in character, was refused sanction because such important sections of the teaching profession as teachers in kindergartens, women teachers of technical subjects, teachers of physical training, of domestic subjects, and so forth, were given no representation.

The next step was the summoning of a more representative conference of associations. The conference was called by the Federal Council for November 13, 1909. It was attended by representatives of all the thirty-seven associations of teachers which were essentially "general in scope and not merely local in character." The conference discussed and then voted upon a series of resolutions, the outcome of which was the framing of a new registration council. This scheme, almost without alteration, has been accepted by the Board. The present Teachers' Registration Council was constituted by Order in Council, February 29, 1912.

It consists of a chairman and forty-four members, representative of every type of teacher and every kind of educational institution. Each member of the council is to hold office for three years. At the beginning of each triennial period ten statutory committees representing the ten groups into which the specialist teachers are divided are to be appointed. The registration fee is one guinea. The certificate of registration is valid for nine years, renewable afterwards for other periods of equal duration. The funds and properties of the old registration council, which have not been claimed from the Board of Education to which they were temporarily transferred, have not been invested with the new council.

The greatest task of the council has already been accomplished. This was to find a common measure of agreement as to conditions of registration. Until 1920 five years' experience of teaching under satisfactory conditions entitle any one to registration. After that time other qualifications will be demanded. Probably none but those who have passed through a successful course at a training college or similar institution, who also have shown themselves skilled in teaching, will be accepted. Unofficially, the qualifications which will be demanded have been stated as a degree or its equivalent, a certain amount of training in teaching, and three years' practical experience. In 1917 the first printed register, containing over 17,000 names, appeared. It is somewhat disappointing in character, owing to the paucity of information it discloses.

No such register is known elsewhere. The whole endeavour shows in unmistakable fashion the real professional solidarity of English teachers.

XI. CONCLUSION

Lack of space forbids the discussion of many important aspects of English education. The universities, for example, deserve a chapter to themselves. It is difficult to understand a country which, on the one hand, sanctions the half-time labour of school children, and on the other institutes a system of medical inspection which has no equal in the wide world. England is burning with reforming zeal. But her views on individual liberty are such as make for caution. In the words of Michael Sadler, her task has been "to encourage individual initiative inside a public system."

XII. RECENT EDUCATIONAL REFORM

Since this chapter was written, a new Education Act (the work of Mr. H. A. L. Fisher) has initiated great improvements in the British educational system, and many of the recommendations for the improvement of English education, which are suggested in this chapter, are included in its scope. The act extends very considerably the range of compulsory education, while carefully respecting that principle of social and individual liberty which is so important a portion of the heritage of the English people; a minimum of State interference with a maximum of local control is the keynote throughout; private schools, private inspection, and private educational effort still find their place within the educational system of the country.

Local education authorities are made responsible for the organisation of all forms of elementary education, including practical instruction suitable to the age, capacities and circumstances of the children, within their respective areas; and for the preparation of children for further education in schools other than elementary, and their transference in due course to such schools. They have to ensure that poverty does not debar any child from receiving such further instruction; they have also to establish and maintain a sufficient supply of continuation schools, in which suitable free courses of instruction and physical training are provided for all young persons who are under obligation to attend such schools. Purely vocational courses, moreover, will not be accepted in these schools.

For seven years after the act comes into operation attendance at these continuation schools will only be compulsory for adolescents between the ages of fourteen and sixteen years who cannot produce satisfactory evidence that they have reached such a standard of education as would justify their exemption, and are not receiving full time or other equivalent satisfactory education elsewhere. After seven years the age limit will be raised to eighteen, but in the meantime voluntary attendance is permissible up to that age. Each pupil will attend such schools for 280 hours per year, and 320 hours is permissible; while the arrangements for attendance are sufficiently elastic to allow of the greatest freedom of action in all matters of times and seasons for giving the instruction; in agricultural areas, for example, the greater portion of it may be given during the winter months. Employers may institute schools in connection with their works, but there is to be no compulsion to attend these works-schools.

Half-time employment disappears for all children under fourteen years of age, the hours of employment during out-of-school hours are reduced in number, and the minimum age for this employment raised; such employment may be either prohibited altogether or limited in amount, if the school medical officer considers it advisable in the interests of the child's health, physical development, or education. Provision is also made for the supply and maintenance of such aids to physical training and corporate school life as holiday and school camps, baths, playing fields, etc. There is to be medical inspection and treatment of young persons attending continuation schools, and this is also extended from elementary schools to all kinds of schools and educational institutions under public control.

Authorities may establish nursery schools for children of two to five years of age, and make adequate provision for the health, nourishment and physical welfare of the children attending them, with grants in aid from the Board of Education. Special attention is also to be paid to the case of children living in remote districts so as to ensure that they do not lose the advantages of education in consequence; for example, they may be boarded and lodged where educational facilities exist.

There are also great improvements in the amount and system of payment of the Board's grants. All fees in public elementary schools are abolished. The old fee grants, aid grants, etc., also disappear, and annual substantive grants are to be paid by the Board, which will amount to not less than one-half the net expenditure of the local authority recognised by the Board.

The limit in the amount which a county council may raise out of the rates for purposes of education other than elementary is now removed; and, with a view to promoting the efficiency of teaching and advanced study, any authority may aid teachers and students to carry on research in or in connection with an educational institution.

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CHAPTER IV

EDUCATION IN FRANCE[1]

I. GENERAL INTRODUCTION

It is generally conceded by cosmopolitan and disinterested observers that France is the brain, and in many respects the heart, of Europe. It is a matter of scientifically-demonstrable fact that for the last hundred years she has been the vanguard of economic progress and has experimented with splendid courage in almost every field of thought and action. While no nation is more socially conservative, at times it would seem almost static in its adherence to tradition, no nation has been equally adventurous in politics and in the humaner spheres of letters and of art. In 1914 it became patent that if France went under, it would be as though the light of Europe had been put out. Scholar, artist, social reformer and scientist alike are unanimous in acknowledging gratefully their debts to a country which has produced a national style of "unencumbered expressiveness" and delicate grace, wherein clear thinking is inseparably wedded to clear expression—which is incapable of making an ugly lamp-post—which has shown both idealism and logic in its economic outlook—which has been the home at once of patient scientific research and of brilliant scientific inventiveness. Only those who have lived in France and are now away from her can realise the tenderness of regard which she inspires—so brave, so thrifty, so gay, so witty, so warm-hearted, and so thorough. It is, therefore, a thing worth while to consider briefly the manner in which France educates her children, shaping them by her tradition and by her atmosphere and ever ready to be shaped by them in turn. Nothing, perhaps, could be more exaggerated than the now fashionable identification of instruction and intelligence, instruction and morality. Instruction can do much to further or hinder thought and morals. It cannot make them. The greatness of France, as of every other leading nation, transcends the excellence of her schools, is rather the cause than the result of whatever educational merit may be found in her. With this reservation, however, we may turn to consider French schools with the certainty that their study will throw light upon the solution of many problems which confront all countries equally and for which the attitude of the most intellectual and refined of European nations cannot fail to be suggestive. "*Rien de si gentil que les petits enfants de France,*" says Montaigne. It is equally true to-day, and equally true also that "*rien de si logique ni de si courageux que ses hommes faits.*" How then have such men been trained?

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[1] I wish to express my gratitude to Mr. Twentyman, the librarian of the Board of Education Library, London, for help rendered in the preparation of this chapter. I am also indebted to Mr. Murray for permission to use certain material occurring in *Higher Education of Boys in England*. The writings of various authors have been consulted. Those of Dr. Farrington, easily the first foreign authority on French education, have proved especially valuable.—A. H. H.

In a sketch of education which has to be condensed within narrow limits a certain superficiality of treatment is inevitable. In what follows the historical causation and development of present-day conditions will be almost entirely ignored: few details and statistics will be included. The aim will rather be to emphasise what is most salient and suggestive in French education to-day than to compile a dull summary of facts and figures. Greater space will be devoted to the exposition of those branches of training, especially secondary instruction, in which France is most distinctive and national. Many things that deserve a more detailed account will inevitably receive only a scanty treatment.

To lead off with a truism, education in France, as everywhere else, faithfully reflects national history. In the early middle ages it was essentially a branch of ecclesiastical activity, the great French schools from the fourth to the twelfth century being monastery schools, mostly for novices, though with a later provision for boys not destined for orders. The secular clergy maintained a lower type of education in episcopal schools, narrowly utilitarian in their aim—the training of diocesan priests. In the thirteenth century, the University of Paris, the prototype of Oxford, begins to take shape and more and more schools are founded on the Mont Ste. Geneviève, students, boys and men alike, flocking to hear the scholastic application of the Aristotelian philosophy to the problems of theology and life. These scholars were divided into four nations, France, Picardy, Normandy, and England, the last, after the Edwardian hostilities, giving place to Germany. The masters and students of the university were recognised as a corporation by Innocent III. and given a certain degree of independence against the Chancellor of the Cathedral, who was prone to limit to "safe" applicants the *licentia docendi*, or master's degree, which conferred the right to teach. Still, the atmosphere remained essentially clerical and scholastic, the Faculty of Arts leading up to the Faculties of Theology, Canon Law, and Medicine. The Arts studies were divided into the *trivium* and *quadrivium*, the former comprising the consecutive stages of grammar, rhetoric (poetry, history, composition), dialectic (philosophy); the *quadrivium* embracing arithmetic, geometry, astronomy, music. More and more the Faculty of Arts became subordinate and preparatory to the other faculties, including only the younger students and giving, in fact, secondary rather than university instruction. Strangely enough, by that tendency to conservatism which meets one at every turn in France, this old-world teaching and its very terms survive in the main in French schools to-day: the forms of the middle school come under the division of "Grammar," the top class is "Rhetoric," followed by "Philosophy" or "Mathematics." As at Oxford, the colleges of the period were originally hostels, especially for boys, who might thus be enabled to pursue their studies far from the town-and-gown riots in which the older gownsmen rejoiced. Most of them were founded by churchmen, with scholarships for the poor; they date from the fourteenth century and under different names many survive to-day, the Collège d'Harcourt being the Lycée St. Louis, the Collège de Navarre the Lycée Henri IV. But whereas at Oxford the colleges have become boarding-houses for *men* studying at the university, in France they have remained true to their original design of providing hostels for *boys*, who complete in them the Arts course and from them take the bachelor's degree. Other university towns of mediæval France, Toulouse, Montpellier, Orléans, Angers, followed the lead of Paris and grouped round them similar schools for their younger students, and we can now see how "secular" is the connection in France between secondary and university education. Again, just as at Oxford, there was an ever-growing tendency on the part of these colleges to keep their students for instruction within their own walls instead of taking them to the public university courses in Arts. Absolute licence was thus exchanged for the monastic seclusion which characterises the French boarding-school to this day.

The Renaissance did not permanently modify the spirit of French education. The Collège Royal, the future Collège de France, which Francis I. founded in 1530, remained, it is true, a protest of the humanistic spirit against the scholasticism and religious dogmatism of the university, but middle-class conservatism gave the victory to ecclesiastical bigotry. Within a brief period the Protestant colleges which had been springing up all over France completely disappeared: humanism became suspect: lethargy again stole gradually over schools and universities alike.

To this lethargy there were two honourable exceptions, the colleges of the Jesuits and the Little Schools of Port Royal. When in 1565, to promote the counter-Reformation, the Jesuits took up schoolmastering their success was rapid. By their unrivalled teaching, the devotion of their masters, the greater humanity of their discipline, and their social prestige they attracted so many students as at times to empty the benches of the university institutions. In a hundred years they had eighty-two schools in Paris alone, the most famous being the Collège de Clermont, the present Lycée Louis le Grand, the school of Molière and so many famous men besides. The Jesuits excelled in teaching the classics, but they taught them formally, as lessons in style alone, and their discipline demoralised by its excessive appeal to rivalry and personal ambition. A much greater educational stride was taken, during their brief history, by the Petites Écoles of Port Royal, the school of Racine and the home of Christian gentleness and modesty. By their insistence on the necessity of leading boys to the unknown through the known, involving translation into the mother tongue (elsewhere a heresy), and their systematic study of French they were notably in advance of their age. Unluckily their benefits were confined to very few boys and Jansenist saints and schools alike were soon suppressed by the influence of the Jesuit Order.

The turn of the victor to be vanquished came less than a hundred years later, for in 1764 the Society of Jesus was suppressed throughout the realm of France, and the University or the Oratorians took over those of the Jesuit colleges which were not amalgamated. The gap caused was immense. In spite of the efforts of the Benedictines and the Oratorians (to whom belongs the honour of emphasising the importance of the studies of history, mathematics, and physics) the deadening hand of the University was more and more felt equally in higher and in secondary education. Reformers like Rousseau and the eighteenth-century philosophers only prepared the way for the coming century by arousing discontent. Finances diminished and lifelessness increased inside the public schools and faculties. It is not surprising therefore that the Revolution found little worth conserving and through its distrust of the pure *savant* turned its energies rather to the creation of special schools of a technical and utilitarian character, and *écoles centrales*, leading up to them, for younger boys. These central schools, with their more encyclopædic curriculum, bridge the gap between the classical training of the old régime and the establishment by Napoleon of the modern secondary school system. As in America to-day they received boys direct from the primary schools which were established at the same time. Had events permitted its survival, the instructional scheme of the Revolutionists would probably have met with a considerable measure of success.

With the beginning of the nineteenth century and before considering the comprehensive changes established by Napoleon we must leave this general introduction. The several grades of education will be best considered separately, though secondary and tertiary instruction remain interconnected with a closeness that is peculiar to France. All French education during the last hundred years has felt the reaction of political and religious feeling with great intensity. Throughout the century, right up to the present war, France has been divided into two camps, and the older jealousy between the Gallican University and the schools of the religious orders has only given way to a fiercer rivalry between the Church and State. Happily there are already signs of greater toleration and the beginnings of a more generous and useful emulation.

II. SECONDARY EDUCATION OF BOYS

[This section mainly reproduces, with the kind permission of the publisher, the author's chapter on the subject in *Higher Education of Boys in England*, Murray, 1909.]

The real reorganisation of French secondary education, on a basis which has remained practically unaltered for a century, is due to the administrative genius and imperial ambitions of Napoleon I. During his consulship in 1802 secondary schools were started by the communes, teaching French, Latin, geography, history, and mathematics, while the central schools were replaced by thirty lycées, supported by the State treasury and devoting their instruction essentially to Latin and mathematics. As emperor, in 1808, he joined all grades of education, primary, secondary, and superior, in a single system called the University of France, taking away the recognition and aid previously given to 350 private schools and establishing a monopoly. At the head of this system was the Grand Master, exercising through twenty-seven academies, or university centres, jurisdiction over every branch of instruction. Thus Rolland's plan of forty years before was realised and an extreme centralisation and uniformity began which has lasted till to-day. The same curriculum was made binding throughout the secondary schools, while it was considerably broadened in character. By 1813 we find 250 collèges, or communal secondary schools, in existence and 33 lycées; of the 14,492 boys in these lycées 3500 were scholars educated at the expense of the state and generally the sons of citizens who had deserved well of their country. The discipline was made military and the school was modelled on the barracks, the hours being signalled by drum and the boys being taught automatic obedience, the best training, it was thought, for future soldiers. In its main lines the Napoleonic system has survived to this day, in its good and bad features alike: perhaps this persistence amid many political convulsions is the best proof of its general excellence and conformity to the French temperament. It is true that with the Restoration the ancient languages again reasserted for a time their dominance over the sciences and that we find a great diminution of the numbers receiving public, as opposed to private, secondary instruction. But even under the Restoration, in 1828, the importance of education was recognised by the creation of a Ministry of Public Instruction whose head was also Grand Master of the University, which thus became a State department while remaining a *personne civile* in order to attract endowments. Other important developments during the century were the increased defrayal by the State of the teachers' salaries at the cost of greatly diminishing the number of scholarships; the reduction, some seventy years ago, of the twenty-seven academies to seventeen, of which fifteen are now university centres; the abolition in 1850 of the teaching monopoly by a law which allows private persons and corporations, under proper conditions, to give instruction; and the gradual increase in the number of schools under both State and private management. We are now in a position to consider the State system as we find it working in detail to-day.

Machinery of State Control.—The spirit of French education may be summed up as a sense of national responsibility for the education, in various degrees, of all citizens, involving supervision of the way in which, whether by State officials or by private bodies or individuals, this education is conducted and the need for it supplied; and, besides this supervision, necessitating the establishment under State direction of schools and institutions which, if they do not monopolise instruction, shall at least set a standard to, and act as a model for, all purveyors of an article so vitally important. At the head of the hierarchy is the Minister of Public Instruction, presiding over superior, secondary, and primary teaching alike. Each of these branches is under the immediate control of a director, responsible only to the minister and proposing to him the reforms which he considers necessary. Taking account, for the present, only of the Direction of Secondary Education, we find that it is divided, under two chief clerks, into departments dealing, one with instruction and scholarships, the other with the *personnel*.

Academies.—Besides this supreme central office, there are, we have seen, seventeen academies, or subordinate centres of administration, all but two with a university town for their chief seat and with a jurisdiction extending over several departments. These academies are Paris, Aix-Marseille, Besançon, Bordeaux, Caen, Chambéry, Clermont, Dijon, Grenoble, Lille, Lyon, Montpellier, Nancy, Poitiers, Rennes, Toulouse, and Alger. Each academy is under a rector, appointed by the minister and acting as his representative. He is aided by one or more[1] academy inspectors, who are, however, as far as primary instruction is concerned, only under his control as regards the normal schools, being responsible in all other respects to the prefects of each department, within whose province elementary education falls. Together the rector and academy inspector superintend the superior and secondary teaching of their district, visiting schools, receiving reports from headmasters and submitting a monthly report to the Minister, appointing the lower grades of masters, and arranging the promotion lists of the higher grades. All business must go through the headmaster, and hence through the rector, to headquarters, if an appeal to headquarters is desired. This *voie hiérarchique* is recognised in France as necessary in order that fuller information may be gathered en route and that a question may be approached from every side. Each academy has its council, which meets twice a year, under the chairmanship of the rector, and is composed of the academy inspectors, the deans of the university faculties, and heads of the superior schools, together with representatives of the university and secondary-school professors of different subjects, of the headmasters, and of the municipal and departmental councils which contribute to the expense of higher education. This council gives advice on regulations, budgets, and administration, and can judge cases of discipline, though appeal can be made from its decision. By means of this academic council control is, as far as possible, decentralised and local interests safeguarded. It is, on a small scale, what the superior council of public instruction is to the Minister at Paris. As this superior council is interesting in its constitution it will be examined here in some detail.

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[1] In Paris eight, in Lille two, generally one.

Superior Council.—Since 1880 this council has been made representative of the teaching profession and of all the scientific and intellectual interests of the country. The chairman is the Minister, and there are two vice-chairmen and a secretary. Nine members are nominated by the President of the Republic from among the present and past directors, inspectors, rectors, and professors of public instruction, and four as representatives of schools free from state control. The remaining forty members are chosen from representatives of the military and central schools, the University faculties, the Collège de France, and the Institute; while the teachers in the lycées elect from their number eight representatives of different subjects, and the collège masters two, one of letters and one of science. Finally there are six representatives of primary teaching, including one woman. The council, thus composed entirely of educational experts, meets twice a year and gives its advice on curricula, methods, examinations, points of discipline and administration, text-books, State control of "free" schools, and is a final court of appeal for judgments on individuals. It cannot bind the Minister, but only advise him. If a member wishes to introduce a topic he submits it to the permanent section of fifteen members, which recommends the Minister to bring it forward if he considers it worthy of discussion.

General Inspectors.—Reverting to the central machinery for secondary education, we find the director provided with fourteen general inspectors, who are concerned with the superintendence of secondary schools throughout France, each of them being a specialist and ex-teacher of one particular subject and inspecting only in that subject. These general inspectors are, as it were, the eyes of the Minister freely ranging through the country, just as the rectors are his eyes fixed upon a particular locality; their influence is great in stimulating teaching and in recommending promotion. An able teacher is easily marked for reward and a new method of proved utility circulated by their agency. They supplement the academy inspectors, and by confining themselves to secondary schools, one or more of them come into contact with every school in France each year and report not merely on the teaching, but on the administration and general competence, of every State establishment. Under the chairmanship of the director, they, together with the head of the Normal School, the Vice-Rector of Paris, and the chief clerks of the four departments under the Minister of Public Instruction, form a smaller consultative committee of secondary education, deliberating on all questions submitted by the Minister, but more especially occupied with appointments and promotions. The rectors are represented by their reports, not in person. The great meeting is at the end of the school year when inspections are over and before the beginning of the summer holidays during which masters can most conveniently change schools. Promotions in the same school (*avancements sur place*), on the other hand, are generally arranged during the winter at a special meeting between the inspectors and rectors. Such in brief is the very effective control devised by France to secure the smooth working of her public secondary education. It will be noted that it is throughout control by experts, generally by ex-teachers, by a bureaucracy that is enlightened and can command respect.

French Secondary Schools.—All French State schools have a monotonous likeness to one another: technically they are divided into lycées and collèges. The only differences between them are: (1) that whereas the State entirely supports the lycée when once the city has provided the site and building, the commune is principally responsible for the maintenance of the collège, although the State is willing to advance the money for construction purposes; (2) that the masters of the lycée are possessed of higher qualifications and paid a higher stipend than the masters of the collège. Externally, size and importance apart, the identity is complete. If we take as an example a typical provincial lycée of, say, 500 boys we shall be struck by the size of the building which will occupy all one side of a quiet street. On entering the main hall we note the lofty proportions and the *tableau d'honneur*, or distinction list of meritorious pupils. A corridor to the left or right will lead to one of the main wings, the *petit* or the *grand lycée* as the case may be, for the younger boys of 13 and under are kept rigorously separate from their older schoolfellows, the whole centre of the building, where the *administration* lives, dividing the two blocks. The kitchen and other offices are of course in common. Following the corridor to one or other of the wings, for both are outwardly identical, we shall find ourselves in a large rectangular playground or *cour*, surrounded by two or three stories of gloomy buildings with the big bare dormitories on top, while the lower rooms comprise refectories, class-rooms, and studies. In France each form has its own study-room for purposes of preparation and there are, of course, modern-language rooms and science laboratories besides. The surface of the playground will often be covered with sharp gravel and studded with trees, as though for the express purpose of hindering games, but French nature is elastic and few sights could be prettier than the gambols of the bare-legged youngsters of the lower school during their scanty playtime, though the upper-form fashion of arm-in-arm perambulations of the *cour* seems to suggest a lowered vitality. The boys of a French lycée are of four classes: (1) *pensionnaires*, or *internes*, boarders, at present about twenty-six per cent. in these schools; (2) *demi-pensionnaires*, or half-boarders, who take their mid-day meal at school, about thirteen per cent. of the whole; (3) *externes*, or day-boys, amounting to sixty-one per cent. and divided into two classes: (*a*) *externes libres*, who only attend during teaching hours and prepare their work at home, (*b*) *externes surveillés*, who prepare their work in the studies with the boarders and are often *demi-pensionnaires*, remaining at school from 8.0 in the morning till 7.30 at night. The day of a boarder is a hard one, for he gets up at 5.0 in the summer or 5.30 in the winter and then goes fasting to the study till 7.15. After the light French breakfast comes half an hour's *récréation* in the *cour*, followed by teaching from 8.0 to 10.0 or 11.0, and then, after a very short break, more study till 12.0. Dinner, a substantial and usually well-cooked meal, lasts till 12.30, when the boys have an hour's playtime. 1.30 to 2.0 or 2.30 is again spent in the study, after which come two hours more form teaching. Half-an-hour's récréation, in which a boy munches a dry crust (*goûter*), is followed by another never-ending preparation period, lasting till 8.0, the welcome supper time. At 8.30 all boys, old and young, go to bed and "lights out" is drummed at 9.0. It will be noticed that two hours are officially assigned for play and about eleven to work in the study or form room. The French are beginning to be alive to the absurdity of this prison life with its inevitable *surmenage* or over-strain, and some provincial schools allow playtime in the evening in the summer. Most study-masters, too, are humane enough to allow a light book to be read, once preparation is completed: even then the time spent, six or seven hours, in preparing for four or five hours' teaching is on the face of it absurd. But tradition dies hard, and although games are beginning to find encouragement little provision is made for them, for headmasters are still too nervous about accidents and parents too over-anxious about examination results for the splendid vitality of French boys to be given proper play. It is true that the very adequate infirmary of every school is nearly always empty, for French nature is wonderfully resistant, but there is everywhere too little recognition of the body and its instinctive craving for activity.

The Authorities: (1) *Administrative.*—Turning to those in authority we first come to the headmaster, called in the lycée the *proviseur*, in the collège the *principal*. Although an ex-teacher with a good degree he has almost always degenerated into a functionary of a singularly unattractive type, confining himself to a monotonous round of administrative duties, out of touch with boys and colleagues alike and either immersed in official correspondence or pompously granting interviews to parents. Although there are many exceptions, especially outside Paris, the proviseur is, as a rule, anything but a leader and inspirer. His chief aim is to avoid scandal and innovation, and his office is in such low repute that the ablest class-teachers never aspire to it. With the increased autonomy now granted to State schools it is to be hoped that a higher type of headmaster, with initiative and sympathy, will emerge. Nothing would do more to improve French education.

Under the proviseur in the bigger lycées comes his deputy, the *censeur*, an official who is nominally in especial charge of the discipline but really does very little except delegate his duties to his two subordinates, the *surveillants généraux*, both of whom are always on duty in the upper or lower school, true watch-dogs superintending boys and ushers alike and having it in their power, according to their temperament, to temper the asperities of school life or to make it like a real prison. Here again we can see the dawn of better things: a boy may now talk at meals and military movements in changing forms are discredited, but the French school still retains too many traces of its mediæval and imperial spirit to be an inspiring atmosphere for the young.

(2) *Supervision.*—The above officials, together with the *économe* or bursar, live on the school premises and are known as the *administration*. But the French tradition, common to both "free" and State schools, that boys require close supervision during the twenty-four hours of the day, involves the maintenance of another body of officials, known as *répétiteurs*, or, officially, as *maîtres*

répétiteurs or *maîtres d'étude.* In the lycées they were till recently divided into *généraux*, who took the service during the day, and *divisionnaires*, who superintended the playtimes and slept in the dormitories: in the collèges one class of men still does this double duty. The répétitorat has long been one of the plague-spots of French education. Nominally recruited from young men working for their degree, in reality its ranks have been full of soured veterans, whose chance of a degree is long past and who have repaid their insecurity of tenure and exiguous stipend by conscientious neglect of their duties and of all opportunities of helping the youngsters under their charge. Now, however, that, thanks to a vigorous association, they have won official appointment by the rector, the right to the same pay as collège masters with the same degree, freedom from all duty outside study-supervision, the right to live in the town, and best of all some small share, if they wish it, of the teaching proper, conferring the title of *professeur-adjoint*, there is every hope of better days ahead for the lycée répétiteurs. It is true that the collège ushers still remain in underpaid serfdom and that the lycées have had to replace their professeurs-adjoints in purely supervision duty by recruiting a new category of men called *surveillants d'internat*, in university centres generally consisting of students who in return for freedom during the day and board, lodging, and pocket-money accept these functions of a male nurse. But in smaller towns recourse has had to be made to old soldiers and a promiscuous herd of quite unqualified men, and the present solution can hardly be more than temporary. Perhaps France will some day adopt the English system of monitors and self-government among her boarders, or take a hint from her own clerical schools and make the teacher the superintendent. Meanwhile, the institution of the professeur-adjoint is full of promise, if the recommendations of the Ribot Commission of 1899 are realised. The répétitorat will then become part of the normal training for every master, for it is hoped that in time all professors will have begun their career as professeurs-adjoints, taking an active part in the life of the boys outside the class-room, sometimes teaching a class themselves and often listening to the full professors as a training in method. If only this preliminary period is tested by an examination in *teaching* and is made really probationary, as in the German schools, then the gain will indeed be great. At one stroke training in the practice of teaching will be given, study-supervision will be secured, and the false barrier that exists between two grades of professing educators will have been broken down for ever.

(3) *Teaching.*—We now come to that branch of officials who have made French secondary education intellectually equal to any in the world, the masters, or, as they are styled, the *professeurs*. Before treating of secondary teaching properly so called, one must mention that, chiefly for social reasons, the French lycée does double duty, in its lower classes, with the primary school, in some cases taking even tiny boys of three. These infant classes are taught by women, fully qualified *institutrices*. Above them come the preparatory and elementary divisions, the former being of two years' duration, with a modern language started in the second year, under the charge of *instituteurs*, or primary teachers; while the latter, the elementary division, comprises the eighth and seventh classes (in France the highest form is the first), and is taught by masters with a special diploma (*certificat d'aptitude*) by no means easy to gain. By the time a boy is ten or eleven he will have entered the sixth class, with which secondary teaching proper begins. For this teaching France provides two grades of masters: (1) the *agrégés*, who, after taking the degree of *licencié*, equivalent to an English honours B.A., have been successful in a competitive examination called the *agrégation* (equal in difficulty to that for an Oxford fellowship), by which the principal posts in public schools, and nearly all the masterships in the lycées, are filled. The most successful candidates, those who are highest on the list, are as a rule students from the Higher Normal School in the Rue d'Ulm at Paris, a famous seminary of distinguished scholars and teachers, founded under the Revolution, and until recently a collège which neglected all pretence of professional pedagogy in order to give expert preparation for the *licence* and *agrégation* to its hundred boarders, drawn by competition from the intellectual *élite* of French schools. The exact number of vacancies in each agrégation is announced beforehand: about eight per cent. of the candidates are chosen. There are eight kinds of *agrégations*: for letters (the teaching of the two top forms in classics and French); for grammar (the teaching of the sixth, fifth, fourth, and third in the same subjects); for philosophy; for one modern language (English, German, Italian, Spanish); for history and geography; for mathematics; for physical science; and, lastly, for natural science. (2) The *licenciés* are masters who have taken a *licence*, either a *licence ès lettres* (subdivided, like the agrégation, into philosophy, letters, history and geography, and modern

languages) or a *licence ès sciences* (subdivided into mathematics, physical science, and natural science). Such men hold the masterships in collèges or are, more rarely, *chargés de cours*, provisional masters, in lycées, when they get higher pay, though never so much as an *agrégé*. For each modern language there is also a special competitive examination called the *certificat d'aptitude*, and a *certifié*, whether he holds the licence or not, through being more of a specialist, has better prospects as a language master than a *licencié* with a " mention " in the subject.

As regards training, up to recent times there has been little, nor is there much to-day, even for the *agrégé*, while there is none for the *licencié*. We have seen that there was no real school of pedagogy in the old École Normale. Since the reconstitution of the University of Paris, however, the Normal School had been doing double duty with the Sorbonne, and a tardy recognition of this fact has resulted in the new arrangement by which *normaliens* are to receive their general instruction outside the school, which is for its part to emphasise its true task as the trainer of teachers. Even under the old régime pupils were required to give lessons in their third year and to spend a fortnight in a lycée before leaving, and it is hoped that the benefits of a professional training, theoretical at the Normal School, and practical and probationary for a year as professeur-adjoint in a lycée, will be insisted upon for all masters, *agrégés* and *licenciés* alike. Meanwhile it is a healthy sign that since 1906 a weekly lecture on secondary-school problems is provided by all the important faculties for all students and teachers who wish to attend, while attendance is made compulsory for *agrégation* candidates. It must be admitted, however, that French masters seem to have a natural gift for clear exposition, and the lack of professional training has been to some extent compensated by the thorough knowledge of the specialist and by the wise and careful *programmes* drawn up for the help and guidance of teachers by an educational council of experts. Teaching, too, has been good so long in France that there has been evolved a traditional (and generally felicitous) method of teaching every branch of knowledge.

The payment of French teachers is on a scale proportionate to their academic qualifications, being lower for the *licencié* teaching in a collège, or holding a chair in a smaller lycée, than for the *agrégé*, who teaches only in a lycée. Again, the rate of payment is higher in the more expensive Paris district. A *licencié* or *certifié* begins with 2900 fr. and rises to 4900, with an indemnity for the metropolis. An *agrégé* will start in a provincial lycée at 3700 fr. and rise to 5700 fr. in the provinces and to 8000 fr. in the Seine department, an attainable goal for every really distinguished master. Besides this, all *agrégés* receive a *traitment d'agrégation* which brings in 500 fr. a year, and in addition a few seniors are granted a *complément de traitment* amounting to 1000 fr. round Paris and 500 fr. in the provinces. In Paris the *proviseur* gets a maximum salary of 13,500 fr., in the departments of 11,200 fr., and has free quarters. Secondary teachers are entitled to a pension at sixty, after thirty years' service, equal to two-thirds of the average salary received during the last six years. Five per cent. of average salary is paid towards the pension—one-twelfth of the first year's salary, and the same amount each time the salary is increased. The pension must not exceed 6000 fr. If incapacitated by infirmities resulting from exercise of duties, a master is pensionable at fifty, after twenty years' service. Provision on a liberal scale is made for widows and orphans, the amount varying between one-third, for normal cases, to two-thirds, for special cases, of what the husband's pension has been or would have been.

The competence of the *professeurs* is admittedly the best feature of French schools, and from the standpoint of *enseignement*, instruction, as opposed to education in the wider sense of the term, they need fear comparison with no teachers in the world. They are all specialists and never teach anything outside their own subject:[1] they reach a very high standard whether in the small country collège or in the great Paris lycée of 1500 boys. They have an open career for ambition, the best of them regularly being rewarded with university chairs, and a high professional and social status. Moreover they have independence and security, since they are nominated by the Minister and can only be dismissed for serious offence. They are likely to be given, as we have seen, a sound pedagogical training. If only French conservatism will allow of the fusion of the duties of teacher and tutor, so that the dual system of to-day may give place to a race of masters at once stimulating in the class-room and interested, as generally in England, in the all-round education and out-of-school activities of their boys, then French State schools will no longer contrast unfavourably with their ecclesiastical rivals through their neglect of pastoral spirit and their indifference to the fact that a boy has a body and character as well as a brain, but will set a standard in

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[1] It is to be noted that except in the lower forms a lycée master only teaches between twelve and fifteen hours a week.

éducation, as they already do in *enseignement*, for other countries to strive after.

Curricula.—Turning now to the curricula, or *programmes*, we shall see that they make a serious, and generally successful, attempt to satisfy the competing claims of modern life. Napoleon made mathematics, science, and French a definite part of the ordinary classical course, and as early as the Restoration a tentative modern side, without Greek or Latin, was instituted, which gained official organisation in 1865 under the title of *enseignement moderne*. This department, subordinate and rather despised till 1880, after that date became increasingly assimilated in length of course, in the literary character of its studies and in the recognition of its diploma for different careers, to the classical side, which had itself "bifurcated," since 1852, at the top into "letters" and "science" sides. Since 1902, when the curriculum was thoroughly remodelled, the assimilation has been complete. To-day, to quote from the official regulations, "secondary teaching is co-ordinated with primary, so as to follow a primary four-years' course (whether given in the lycée or in the elementary school). It is arranged in a seven-years' course, divided into two *cycles*, the first lasting four years, the second three."

Four-Years' General Course.—In the first *cycle*, boys can choose between two sections. In one they are taught (besides subjects common to both) Latin, as a compulsory subject, beginning in the first year of the course, *i.e.* in the sixth class, and Greek, as an optional subject, beginning in the third year, *i.e.* in the fourth class. In the other section there is no Latin or Greek, but fuller teaching is devoted to French, science, drawing, etc. In both sections the curricula are so arranged that after passing through the first *cycle* a boy has acquired an intellectual training that can be made to suffice by itself and that forms a whole. At the end of this cycle a diploma of lower-grade secondary study can be granted, in consideration of marks gained during the four-years' course and after consulting the masters who have taught the classes.

Three-Years' Special Course.—In the second *cycle* boys can choose from four main sections: (*a*) Latin and Greek, (*b*) Latin and a fuller study of modern languages, (*c*) Latin and a more thorough study of sciences [sciences include mathematics], (*d*) modern languages and sciences, without Latin. Section (*d*), which will usually be taken by boys who have done no Latin in the first *cycle*, is also open to boys who give up Latin at the end of this *cycle*. Moreover, subject to ministerial approval, academic councils can arrange in a certain number of schools a special two-years' science course, adapted to the particular industrial needs of each district, and to be taken after the first *cycle*, with recognition by a diploma granted upon examination. The *baccalauréat*, or bachelor's degree, has now been given an identical title for all subjects (no longer being divided into *ès lettres*, *ès sciences*, *moderne*), and confers the same privileges on candidates of all sections. It is taken, as before, in two parts, separated by at least a year's interval: the first part being an examination in the subjects of one of the four sections of the second *cycle*, and the second part being a test in philosophy or mathematics as the main subject, though either of these alternatives embraces, in part, the other, and physical and natural science besides.

Salient Points of French Teaching.—Lack of space forbids the giving of the time-table in details.[1] The teaching hours vary between twenty-two and twenty-eight and a half per week, the number having been slightly reduced by the reform of 1913. It will be noted that France, while asserting, at least officially, the superiority of the *classics* to science as an intellectual gymnastic, prefers to confine Greek at least within the limits of a voluntary subject reserved for apt pupils. In practice it is found that section (*a*), Latin and Greek, and section (*c*), Latin and science, divide between them the great majority of the boys with brains, and French boys seem to like their classics, since they are treated as humanities and escape over-emphasis of the philological and grammatical aspects. My own experience of French schools is that Greek is now taught by enthusiasts to keen pupils and that the gain in quality more than compensates for the decrease in quantity. Perhaps, however, the most brilliantly successful of all French subjects, in its teaching and results, is the *mother-tongue*, always in the hands of the master who takes the classical work and taught with equal care. Composition of every kind, and wide reading of the literature of different periods, are its chief notes. The effect has been to arouse a keen literary interest in educated Frenchmen and to produce an unrivalled national style, in which correct taste and delicacy and precision of touch are instinctive. *Modern languages* are taught by specialists who take one language only and employ the direct method. A boy chooses one language as his main, and another as his subsidiary, subject. *History and geography* are together in the hands of another expert, and are taught in two cycles, in the second of which the rapid sketches learnt in the first are recapitulated and looked at from a new, more advanced, standpoint. History, too, is carefully correlated with literature, the same periods being when possible studied during the same year. As to *science*, equal stress is laid upon natural and physical science: the treatment, however, is over-theoretical, only science specialists doing laboratory work. There is a rather colourless course of *moral teaching* given in the fourth and third forms, and a really useful course of *hygiene* given in the last year at school. The course in *philosophy*, though too rapid to admit of much original thought and certainly given to rather young students, at least guarantees that every educated Frenchman has heard something of the main problems of psychology, aesthetics, logic, ethics, and metaphysics, and knows a little about their history and chief exponents. There is certainly no class that is more generally enjoyed.

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[1] See the *Plan d'Etudes dans les Lycées et Collèges de Garçons* (Paris, Delalain Frères, 1 fr. 50 c.). Vol. 24 of *English Special Reports* gives this in full.

Physical Exercise.—Out of class hours, gymnastics and military drill are taught for three hours a week; fencing is very extensively practised; riding-classes are often organised; and recently all schools have been encouraged to teach shooting. Thursday and Sunday are holidays and are reserved for music lessons, detention classes, and in the case of boarders for the miserable *crocodile* walk which still arouses public pity. Any boarder with a friend in the town can, however, generally get leave to spend the afternoon and evening *en famille*.

Relative Numbers in State and Free Schools.—Since 1850, the State has ceased to enjoy the legal monopoly of education; various causes, political and social, have resulted in the rapid spread of ecclesiastical schools, which give in the main the same instruction and have to submit their boys to the State examination and employ teachers with adequate University diplomas. In 1854 there were in State secondary schools 46,440 boys; in free unsectarian schools, 42,462 boys; in free ecclesiastical, 21,195. In 1898, State schools numbered 85,599 boys; free unsectarian, 10,182; ecclesiastical, 68,825 (with 23,000 more boys in *petits séminaires*, a lower grade of secondary school). Thus at the beginning of the present century, apart from the 142 *petits séminaires*, forty-one per cent. of the secondary-school boys of France were in ecclesiastical schools, and half of them were boarders, whereas in State lycées boarders had fallen from forty to twenty-six per cent.

and in the collèges from thirty-four to thirty. Hence, perhaps, some of the bitterness against the congregations, who, however, have to some extent outmanœuvred the law by external self-secularisation. In 1899 the number of boys in French secondary schools was as follows:—

	Boys	
In 100 lycées and 230 collèges	86,321	(52,372 in L., 33,949 in C.)
In free unsectarian schools	9,725	
In ecclesiastical schools	67,643	
In *petits séminaires*	23,497	
	187,186	
Deducting boys in private schools attending State classes	1,576	
	185,610	(about 5 per 1000 of the population)

Since then the number of ecclesiastical pupils has seriously diminished, being (1906) 20,820 as against 35,049 in the free unsectarian and 98,963 in the State schools (62,092 boys in 1912 were in the lycées and 36,796 in the collèges). When, however, we remember that there are at least 20,000 boys doing primary work in State schools, and none in the free schools, the disparity in numbers between State and other schools seems rather less pronounced.

Cost of Secondary Education.—As to the cost to the State of French secondary education for boys and girls, in the budget of 1913 it amounted to 44,567,007 fr., and to this we may add a rough estimate of 7,500,000 as the sum spent by the towns and departments in maintaining collèges. All this allows nothing for building, which has a rather extravagant tradition, especially in Paris. It is computed that the State has spent an average sum of 250 fr. per boy on buildings during the last forty years, and that since, besides this, it contributes an average of 253 fr. for each boy in the lycées and 128 fr. per boy in the collèges, we may put the average cost per boy at about 500 fr. including interest on capital charges and contributions of both central and local authorities. By the new régime the lycée is made autonomous in dealing with its boarding arrangements and is expected to make both ends meet. The fees in French schools vary according to the district and the age of the boy; on the average the family bears about fifty-two per cent. of the total cost, not including capital charges. In Paris a boarder pays from 1500 fr. to 1650 fr. a year, according to age, a half-boarder 550 to 1250 fr., a day-boy from 100 to 700 fr. with an extra 100 fr. if he works in the study. In the provinces a boy can be a boarder for from 450 fr. to 1250 fr., and a day-boy from 50 fr. to 500 fr., with an extra fee of 90 fr. for supervision. Books are provided at 50 fr. a year for day-boys and are free to boarders. In free unsectarian schools the fees are much the same, in ecclesiastical schools slightly lower.

Scholarships.—It is calculated that in 1887 there were 5700 scholarship holders in the lycées and 4700 in the collèges, eleven per cent. of the whole school-population. The scholarships, formerly awarded principally because of public service of relations, are now given, except in the case of children of primary and secondary school teachers, on the grounds of necessity and ability, and since 1848 the national, or State, *bourses* have been supplemented by a liberal supply of departmental and communal *bourses*, for day-boys as well as boarders. Of the national scholarships only a quarter are held by boys coming direct from the elementary school, and in the country districts there is an admitted deficiency of public help. It is still in the main true that secondary education is built alongside, not on the top of, elementary, and that there is no adequate *carrière ouverte aux talents* for the brains of the poorest classes. The secondary-school course proper begins when a boy is ten or eleven and the primary-school boy who wins a scholarship later is, therefore, handicapped on arriving at the lycée. The French, on the other hand, show a laudable care in adjusting their help to the needs of the recipient, giving *bourses* which cover from a quarter to the whole of the expense, and *bourses d'entretien*, or maintenance grants, to needy day-boys. A boy can offer himself for election any time after passing the seventh class, being tested in work of the same difficulty as that of the form in which he happens to be. If successful he is given a *bourse d'essai*, which is converted, if he gives satisfaction, into a definite *bourse de mérite* at the end of a year. It is to be noted that there is also a liberal supply of scholarships in free and ecclesiastical schools.

The Baccalauréat.—All French parents who can afford it are ambitious that their sons should take the bachelor's degree, which opens the door to all branches of the civil service and to the liberal professions. The examination is adapted to the school courses and is taken in two parts, one after a year's work in the first class (*rhétorique*) and the other after taking philosophy or mathematics. In the paper work (*écrit*) more stress is laid upon answering a single question thoroughly and tastefully than upon showing varied and extensive knowledge, this last being tested rather by the *oral*, to which candidates who have passed on the written work are admitted. The examiners are now chosen in about equal numbers from university and secondary professors, and a boy can produce his *livret scolaire* to show his school record. Rather less than half the candidates pass in the July examination: the rest generally try again in the following November. Able and needy aspirants to teaching, on signing a ten years' engagement, are given a *bourse de licence* to read for a higher degree, and there are also *bourses de séjour à l'étranger* for modern-language students and professors. There is also an attempt made to counteract the excessive tendency towards state or professional careers by awarding scholarships to the great commercial and technical schools. The need for this is shown by the recorded ambitions of 974 *boursiers de lycée* in 1894-95-96, of whom 204 meant to be professors, 66 aspired to the magistrature or the bar, 215 to government administration, 259 to medicine or pharmacy, 123 to the army, and only 107 to business or manufacturing.

Conclusion.—To deal first with the defects, the first and greatest in French secondary education is obviously its neglect of the all-round interests of the boy. When the overcrowded lycées, which tend to become mere brain factories, are converted into museums and their boys are removed into smaller schools, preferably in the suburbs, with room for playing-fields, then and then only will the delightful French youngster come into his own. Meanwhile, if it can find them, and they certainly exist, the State might appoint "apostles instead of officials" as its headmasters, and by giving them greater independence encourage them to stay in one school longer than the present period of one to three years. Again, the advice of the Ribot Commission might be followed and boarders distributed among recognised families, preferably among the masters, if French tradition, as is probable, proves too strong for the thorough humanisation of the *internat*, long the most crying evil of French education. But only when the masters, and especially the headmaster, take a personal as well as a professional interest in the welfare of their boys shall we find the *éducation* worthy of the admirable *enseignement*. The next defect, closely related to the first, is the appalling monotony of type displayed by the lycées and collèges. What France sorely needs is diversity and variety of type and experiment, and instead of aiming at a state monopoly she should, after taking suitable guarantees, encourage, rather than crush, free schools, even if they are conducted by the clergy. The ends of education can be adequately served only when it is treated as a national concern beyond the reach of political and religious bickerings. The whole of France gained in inspiration when Lacordaire was headmaster of the clerical school at Sorèze and his favourite pupil, Père Didon, at Arcueil, for apostles are to be found among priests as well as laymen. France is surely great enough to embrace and recognise every kind of past tradition and to help all schools that are working in a common cause. Generous emulation is needed, not jealousy and mutual bitterness.

Turning to the good points of the French lycée, they are too many to enumerate. The teaching is admirable and by the curricula the boy fulfils Matthew Arnold's dictum—he gets "*to know himself and the world.*" Science pervades the teaching of languages and a literary spirit the teaching of the sciences. No country teaches its own mother-tongue so inspiringly and thoroughly. Intellectually the middle-classes in France are brought up on the first plane, and inside the school, although as we have seen its doors are not as yet flung open widely enough to the able poor, there is a splendid absence of class distinction. French education is cheap to buy, but the teaching is always an article of first quality guaranteed by the State. The notable recent reaction, on the part of a portion of the wealthier classes, in favour of a type of boarding-school education on English lines, which was aroused by M. Demolin's book *A quoi tient la supériorité des Anglo-Saxons*, and has already resulted in the foundation of five schools, of which the most famous are the École des Roches, the École de l'Ile de France, and the Collège de Normandie, must not blind us to the necessity of France reforming her system on national lines. As long as the *baccalauréat* is the entrance to all professions and to the civil service, most parents will send their boys to schools where success in this examination can be best assured, and too many will find the higher fees of these new schools beyond their means. Useful as all such experiments are, the solution will only come when the State herself has been converted to the humanising of her own establishments and undertaken to provide for the whole training of the boy, whether day-boy or boarder, as excellently as she has long provided for the intellectual equipment of the *bourgeoisie.* The Ministry of Education has recently shown itself so accessible to new ideas and so paternally interested, as it professes, in the highest good of its young charges that those who are the most fully alive to the defects of to-day are inclined to look forward with confidence to the developments pending in the future.

III. UNIVERSITY EDUCATION

As we have seen, there are now, and have been since 1896, fifteen universities in France, as well as that peculiarly national institution the "University of France," which is really the State in its function as supervisor of all branches of education. It would indeed be surprising if we did not find universities, in the ordinary sense of the term, in a country which gave birth to them. At the time of the Revolution there were indeed twenty-one, but in a moribund condition, dying slowly of mediæval formalism. With the Revolution they disappeared and in their place arose, with the exception of the liberal Institute of France, special schools of a narrowly utilitarian and professional character, such as the Polytechnic, the Normal School, and the Schools of Medicine and Law. With Napoleon came the University, in the State sense, centralising all education under one administration and retaining the practical character of the higher studies. The Schools of Law and Medicine were rechristened Faculties and by their side sprang up Faculties of Letters and Science, the principal duty of which was not so much teaching or learning as the granting of degrees which might serve as a guarantee for admission to certain professions and to State employment. So things continued until 1868, France producing many men of high distinction in literature and science, but in spite of, rather than because of, the Faculties themselves, which were formal in their humane studies and very badly equipped for scientific research. Most of the teaching was superficial and, apart from celebrated public lectures, given to empty benches. In 1868, the *École des Hautes Études* was founded by Victor Duruy, the first fruits of the democratic and scientific enthusiasm which produced the Revolution of 1848 and survived and grew throughout the Second Empire. The faith of the people was centred on science, pure and applied, and the same spirit reacted on every sphere of thought, producing naturalism in art, positivism in philosophy, and transforming the attitude of the *savant* towards philology and criticism. More and more the need was felt of a national system of universities where this spirit should reign and grow. Reinforced by the lessons of 1870, and consistently fostered by the Third Republic, this movement has to-day reasonably realised the ambitions of its early champions. Inspired by the freedom and unfettered research of the German universities, France has now succeeded in a double task, the granting of degrees which shall remain State, not academic, degrees and shall serve as a standardised public guarantee of efficiency, and the fostering of scientific method in every branch of study. This success has been chiefly due to the energy with which the great French towns have seconded the government in transforming and equipping their languid Faculties. They have provided nearly half the cost of the buildings, while the generosity of the State may be measured by the fact that whereas in 1870 the State voted for Superior Education only 4,245,521 fr., in 1913 the university portion of the yearly budget amounted to 25,905,398 fr. In 1874 there were six chairs in the Arts Faculty at Bordeaux: there are now twenty. In 1877 there were six students at the Sorbonne in Paris: in 1911-12 there matriculated in the Faculty of Letters alone 3221 students, of whom 1225 were foreigners. In the Faculties of Science the number has risen from 194 in 1878 to 6639 in 1913. Since 1898 the universities have been given an independent existence: they collect for their own use their own fees, while the State pays for nearly all the teaching, and most of the equipment and scholarships. The private budget of each university is spent principally on libraries, collections, laboratories, and publications.

Organisation.—There are, we have seen, seventeen academies, fifteen of which are in university towns. The rector of the university is head of the academy and represents the Minister. His task is to superintend the efficiency of the three grades of national education. Confining ourselves here to his control of superior instruction, we may say that the rector is at once the representative of the State University of France and of his own particular university. In the management of the affairs of the latter he is helped by a university council, which administers university property and settles internal difficulties. It is composed of the deans of all the Faculties *ex officio* and two other representatives are elected by each Faculty as well. Besides this supreme council, every Faculty has its own council and assembly, the former made up of full professors and *professeurs adjoints* only, the latter embracing also the *chargés de cours* and lecturers, or *maîtres de conférences*, as they are called. The dean is appointed for three years by the Minister from a double list of two candidates presented by the university council and by the Faculty assembly.

Stipends.—The full professors, *professeurs titulaires*, enjoy independence and practical security of tenure. Their salary varies between 12,000 and 15,000 fr. in Paris and 6000 and 12,000 in the provinces. The *professeurs adjoints* can only number one-sixth of the *titulaires* in the Faculties of Law and Medicine, and one-third in those of Letters and Sciences. The title is purely honorary and confers no financial advantage. The *chargés de cours* are lecturers who replace an absent professor or even a dead one to whose chair they aspire. In the medical and legal Faculties the lecturers are *agrégés*, appointed for ten years after a competitive examination. In the Science and Arts Faculties the *maîtres de conférences* and *chargés de cours* are paid either by the State or by the local university. They generally start with 4000 or 4500 fr. in the provinces and go up to 6000: in Paris their salary ranges from 6000 to 10,000 fr. All must now possess the Doctor's degree.

Teaching Hours.—The great majority of the university professors in France have made their *début* in a lycée where, after securing their agrégation, they have prepared the necessary theses and taken their Doctor's degree. On the average they spend from eight to ten years in secondary work, though good fortune may reduce the period to from four to six years. All Frenchmen I have met seem to consider university work preferable to school-teaching. It is true that the pay is greater, the work more advanced, and, as we shall see, the teaching-hours few. But it is doubtful if all Englishmen, who have tried both, would willingly give up the pleasure and freshness of mixing with boys for any promotion that took them from them. It must be remembered, however, that from the university to the primary school the French tradition is still the mediæval and military spirit of teacher and pupil, superior and inferior, rather than that of the more human comradeship which characterises English and American education.

On the average university professors and lecturers give only three hours' teaching a week: of these in the Arts and Science Faculties one is generally open to the public while the other two are reserved for matriculated students. The academic year begins in November and ends in July, divided into two semesters by the Easter vacation. Extra teaching courses are frequently undertaken, but these are always paid extra. Besides his lectures the university professor or lecturer (their work is the same) corrects the written work submitted to him by his students, superintends their practical or individual work, receives them at the university or in his home and gives them advice about their studies in general and their research-subject in particular. Matriculated students who live at a distance can send their work by post for correction.

If there are several teachers of one subject the student can choose his own "tutor": the teaching work is divided among them under the direction of the full professor.

Degrees.—There are three university degrees in France, the *baccalauréat*, the *licence*, and the *doctorat*. The first has been treated of under secondary education: in the Faculties of Arts and Sciences it is the termination of secondary-school studies; in the Faculty of Medicine both it and the *licence* have disappeared: in Law it is incorporated with the *licence*. Turning to the higher degrees, the tendency of to-day is to give all possible freedom to individuality while maintaining their old value as guarantees. They are meant to encourage learning, not merely to test it; it often happened in the past that they arrested it. For the *licence*, which corresponds to an English honours B.A., instead of a list of authors prescribed by the Minister for each Faculty, the university now draws up every two years a list of authors on which its professors will lecture. The examination, too, is now divided into two parts, ordinary and special. In the second part a candidate may choose any subject taught by the Faculty and may substitute for an essay on a given subject, done in a given time, an essay written at leisure on an approved subject chosen by himself. The *licence-ès-lettres* is divided into four sections, letters (*i.e.* the classics and French), philosophy, history, and modern languages. Besides the *licence* a diploma in higher studies (letters, philosophy, etc.) is demanded from candidates for the different *agrégations*, and gives them an opportunity of showing their ability in research as distinguished from their professional attainments. The *doctorat-ès-lettres* requires two theses, one in French, the other, a critical study, either in French or in a classical or modern tongue. To obtain the *licence-ès-sciences*, a candidate must obtain three certificates of advanced studies either from the same or from different Faculties. The science doctorate is granted on two theses, one on a given, the other on an optional, subject. Both Science and Arts Faculties prepare for the *agrégation*, the most difficult State examination in the world, which opens the door to the chief positions in the teaching profession. The Faculties of Law and Medicine have been similarly modernised and made more comprehensive and thorough.

Student Fees.—Practically all French students are *externes*, living their life freely in the town and not under collège discipline, although recently some attempts have been made to organise a common life under university control. In theory and to a great extent in fact they are recruited from all classes of society, for France believes in equality of opportunity and has done her best to reduce individual expenses to a minimum and to provide a liberal supply of scholarships. Nevertheless it is still rather the *bourgeoisie* than the "people" who take advantage of university education, and it is noticeable that the poorer middle classes make up the bulk of the Science and Arts students, whereas the *fils de famille* are to be found mostly in the Schools of Law and Medicine, which have longer and more expensive courses of study. There are no tuition fees for instruction beyond the bachelor's degree, but there are certain fees for matriculation, registration, library, laboratory, examination, and diploma. The bachelor's degree costs 140 fr. in all, while the licence costs 205 fr. at least, made up of an annual library fee of 10 fr., 90 fr. registration fee per annum, and 105 fr. for examination and diploma. No fees are demanded from Normal students or for the *agrégation* examination. It must be remembered that all the examinations are State examinations and a State monopoly, but while the universities alone can confer degrees on behalf of the State there is nothing to prevent any one preparing the student for these diplomas. Higher instruction is free in France: any one, except scholars, can study where he will, if only he pays the necessary registration fees. As a matter of fact only about a thousand students are to be found in all France in the free or Catholic Faculties, and the case of the student with a private tutor is very rare. Certainly no one avoids the State universities because he can find better teaching elsewhere.

Aim of the French Universities.—The main ideal of the modern higher education in France is freedom, the maximum amount of it that is compatible with its obligations to the State. The professors are, it is true, civil servants and prepare for State diplomas, but each university is encouraged to lead its own life, draw up its own course of studies, and, with the approval of the ministry, to institute its own diplomas of an exclusively scientific character. These diplomas are chiefly sought by foreigners who are unable to spend a sufficient time in France to gain the State degrees. The most popular is the *Doctorat de l'Université*, but there is a multitude of diplomas which guarantee a competent knowledge of various subjects. A similar tendency towards practical activity is shown in the "regional" spirit of the universities, in the way in which they adapt their instruction to encourage local industries, such as agriculture, wine-production, watch-making, as the case may be. More and more technical departments are yearly added to each university, and had not the love of research and knowledge for its own sake taken in the last thirty years such firm root in France, one would almost fear that too practical and utilitarian a turn might be given to superior education. Happily, however, the ideal of the advancement of knowledge, as well as its dissemination, receives more than lip service, as any one may see who reads the often masterly monographs on critical or scientific points which are submitted for the Doctor's degree. In the scientific Faculties practical work in the laboratory, guided by a *savant* towards disinterested research, yearly becomes more important. The Law schools have become more historical and less dogmatic: those of Letters seem to inculcate just that combination of precise and first-hand knowledge with felicitous and clear expression and literary feeling which makes a French book so pleasant and so profitable a companion.

Special Schools.—No survey of French higher instruction would be complete to-day without mention of the ever-growing number of special schools which supplement the "University" education. Those which aim at disinterested culture are mostly under the Ministry of Public Instruction; those whose object is rather technical and professional instruction are supervised and supported by other Ministries. To both classes at once belongs the *École Polytechnique*, under the War Office, the nurse equally of military and civil engineers. To the former class belong the glorious *Collège de France*, the home of pure learning since the days of Francis I., the Museum, the *École des Hautes Études*, the *École des Chartres*, the *École des Langues Orientales Vivantes*, the Schools of Athens and Rome, and, a perfectly independent institution, the Free School of Political Science. Of these the Museum, with its twenty-nine chairs, teaches geology and botany; the School of Higher Studies, lodged in the Sorbonne, inculcates the scientific treatment of any problem belonging to its four sections of mathematics, physics and chemistry, natural history and physiology, historic and philological science; the *École des Chartres* trains antiquarians and librarians and advances the study of documentary evidence; the School of Living Oriental Languages specialises in Arabic, Modern Greek, Hindustani, Chinese, Japanese, and Annamite; the School of Athens trains for three years picked classical students, selected by competition, in Greek archæology, while the School of Rome does the same for Latin antiquities; lastly, the Free School of Political Science has for its object the preparation of students for careers in diplomacy, in financial and colonial administration, and for leading positions in commercial life, such as banking and railway management.

IV. PRIMARY EDUCATION

Ever since the Revolution France has acknowledged her responsibility for the education of all her citizens: her realisation of this duty has ever since been progressively maintained. In 1808 we read that one of the rector's charges was "the little schools, the primary schools, where one learns reading, writing, and the first notions of arithmetic." When in 1828 the Ministry of Public Instruction was organised in its present form, primary education received recognition as one of its most important departments. In 1833 the establishment of boys' schools was made compulsory in every *commune* and an effort was made to set up a system of higher primary instruction. In 1868 a directorship of primary education was created. The Franco-Prussian War gave an enormous impetus to the improvement of the people's schools, for France recognised that it was to a great extent the German elementary schoolmaster who had won the victory. Since then progress has been rapid. In 1889 the State assumed responsibility for teachers' salaries: since 1881 primary instruction has been free and since 1882 obligatory for all children from six to thirteen years of age. In 1870 the State budget for primary education amounted to 9,988,300 fr. In 1913 it reached the sum of 235,279,352 fr. Higher primary schools will be dealt with separately: in this chapter let us confine ourselves to the education of the average boy and girl in the ordinary elementary school.

First, it must be realised that whereas in America the primary school leads up to the secondary, in France it educates children of the same age alongside of it, and the transition from one to the other we have seen to be by no means easy or widely extended. The primary school prepares for agricultural, industrial, and commercial life, the secondary school for the university and the professional world. Up to now there has been no serious attempt to break down these rather aristocratic barriers.

The Central Authority.—Like the other great branches of education, primary instruction in France is a part of the huge centralised machine. Under the Minister we find a director of primary instruction in charge of five bureaux, dealing respectively with: (1) the personnel; (2) discipline, programmes, and examinations;

(3) construction of schools and school supplies; (4) teaching force in the lower primary schools; (5) normal schools and scholarships. The superior council which advises the Minister has six representatives of primary education among its fifty-seven members; the more active consultative committee which meets monthly has a primary division, composed of the inspectors-general, the vice-rector of the Academy of Paris, the director of the *Musée Pédagogique*, a primary inspector, the directors of the two normal schools of the Seine department, and a general inspectress of the *écoles maternelles* or kindergartens. Of the general inspectors, eleven men and four women (for the *écoles maternelles*) are in charge of primary education, serving as the Minister's eyes and hands, visiting the normal schools and a certain number of primary schools, assessing the merits of the primary inspectors and the staff of the normal and higher primary schools, and compiling general and comparative information about the progress of primary instruction in France. In December each year, together with the rectors, these meet in Paris and arrange the promotions of all above the rank of the ordinary *instituteur*.

The Local Authorities.—Primary instruction, like the higher grades of education, is locally under the control of the seventeen academies, and the rector is at the head of all, though he has, in primary education only, to share powers with the *préfet*. The normal schools and higher primary schools are his especial care, for the majority of the teachers are appointed directly by the Minister on the joint recommendation of the rector and general inspector, whereas the prefect appoints, at least nominally, the ordinary elementary teachers. In primary instruction proper the rector controls rather movements and conditions than individuals, appointing examining boards for the various certificates and approving the list of books to be used. But so busy a man necessarily delegates duties and most of his oversight of primary schools is exercised through his academy inspectors, of whom there are ninety-nine, one for each department with a few exceptions. Generally selected from the ranks of secondary *professeurs*, the academy inspector has duties partly under the rector and partly in co-operation with the prefect. On behalf of the rector he presides over the councils of the normal schools, is a member of the *comité de patronage* of all higher primary schools, inspects primary schools when he can and receives the reports of the primary inspectors. With regard to the prefect, the chief State official in control of each department, his duties are rather to exercise a modifying influence. The prefect and the departmental council control the *externa* of all lower primary schools and the prefect appoints their teachers when they become *titulaires*, but only on the recommendation of the academy inspector, who has the appointment of the *stagiaires*, or probationers, who in order to become "full" teachers must have served for two years in a public or private school, hold the *certificat d'aptitude pédagogique*, and be on the eligible list drawn up by the departmental council. The prefect is the president of the departmental council and safeguards the administrative and financial interests of the communes under his care. Turning to the constitution of this council, which corresponds to an English County Council Education Committee, we find that there are fourteen regular members, made up of the prefect, the academy inspector, four *conseillers généraux*, or county councillors, chosen by their fellows, the directors of the two normal schools, two men and two women teachers elected by their fellow-teachers, and two primary inspectors designated by the Minister. Members are elected or appointed for three years and their powers are limited to primary instruction. It cannot levy a tax, which is the prerogative of the county council as a whole, but it supervises the condition and needs of the public schools, determines, subject to the Minister's approval, the number of lower elementary schools needed by each commune, and the number of teachers required by each school, appoints a cantonal delegate to supervise public and private schools in each *canton*, draws up a list of teachers from which the academy inspector must select his nominations to be made to the prefect for promotion to the rank of *titulaires*, and, above all, deals with the rewards or punishment of the primary teachers.

Primary Inspectors.—With these officials we are gradually getting nearer to the schools themselves. They have well been called the privates of the army of inspectors: they number roughly one for each *arrondissement*, the administrative district next below the department. In 1903 there were 451 in France and Algeria, being one for every 246 teachers. Besides the ten women inspectors of the *écoles maternelles* for the whole of France, two departments have made a good beginning by appointing women primary inspectors. Both men and women are appointed, usually from the teaching ranks, by the Minister after a severe competitive examination. They are classed with directors of normal schools and rise from 3000 to 5000 fr., plus a minimum of 300 fr. from the department. Their duties are to inspect public and private schools, though in the latter they merely satisfy themselves about their hygienic and moral condition. They are consulted on the promotion of teachers and are expected to take a lead in the adult and evening classes, the savings banks, and the other *œuvres complémentaires* of the school. After inspection they leave with the teacher a memorandum of their criticisms and report to the academy inspector. They are supposed to, and do, look out for merits as well as defects.

The *délégués cantonaux* act as school managers, each to a group of schools, and confine themselves to the material welfare and tone of the pupils. At least once in three months they meet and discuss any recommendations to be made to the departmental council. Together with the mayor and a minority of members (not more than a third) of the municipal council they make up also the *commissions scolaires*, or local school committees, established for over thirty years in each commune to encourage school attendance, *œuvres complémentaires*, and to help necessitous cases by establishing a *caisse d'école*, or school fund.

Finance.—Until 1889 each commune maintained its own schools and paid the teachers' salaries, receiving, it is true, large subsidies from the State and the department. But there was so much inequality of standard that in this year the State took over the responsibility for stipends and all Normal School expenses except the buildings and equipment. The primary budget of the State sprang accordingly from 86,016,880 fr. in 1889 to 121,488,778 fr. in 1890, while the expenses of the communes dropped from 71,956,078 fr. to 56,580,247 fr. This means that the State acts as the financial agent, collects a certain tax from the communes, and distributes it equally. The departmental expenses have shrunk to nothing from being 17,907,315 fr. in 1889. In 1902 the State, through the Ministry of Public Instruction, omitting the educational activities of other State Departments, spent on primary education 155,098,452 fr. and the communes 81,500,516 fr. Since 1879 the maintenance of a normal school for boys and one for girls has been obligatory on each department, though, as we have seen, only buildings and equipment are now paid for by them. A generous county council, however, helps the communes to defray the cost of buildings, gives entrance scholarships to higher primary schools and grants for foreign study of languages to their teachers, and generally supports the *œuvres complémentaires* of the schools. The obligations of the communes are more serious. By the law of 1833 every commune must maintain a school itself or jointly with another commune. By 1892 only .1 per cent. of the communes lacked accommodation. Since 1867, moreover, each commune of 500 inhabitants, unless exempt by the departmental council, has had to support a separate school for girls. Since 1885 the poorer communes receive substantial State aid towards building expenses, 5,900,000 fr. being spent in such subvention in 1903. Only the *écoles primaires élémentaires* are obligatorily maintained by the communes, but the State gives a lump sum towards the building or organisation of *écoles maternelles* (where there are 2000 inhabitants and not less than 1200 people resident in the same village), and also of *classes enfantines, cours complémentaires*, higher primary schools, and *écoles manuelles d'apprentissage.* Below these limits the commune must provide the entire cost of building, though the State is always responsible for the salaries.

Besides this the commune must pay the teacher's *indemnité de résidence*, provided for by the law of 1889 in order to counterbalance the effect of equalising salaries. It is obviously more expensive to live in towns, so towns of more than 1000 inhabitants have to make an allowance varying from 100 fr. to 800 fr. per annum for heads of schools and all teachers in the higher primary schools or *cours complémentaires.* The ordinary *titulaire* gets half and the *stagiaire* a quarter of the above amounts. In the Seine department there is a special scale, with a maximum of 2000 fr. in Paris. Besides this the commune has to provide a suitable lodging or its equivalent for every teacher, and pay for the lighting, cleaning, and heating of the schools, as well as the wages of the foremen who assist the masters in any technical schools that it maintains. Lastly, the commune is expected to help the State and department in their support of *œuvres supplémentaires*, school kitchens, and the supply of free text-books, a matter in which France is still rather backward.

The Teacher.—In 1901, out of the 169,245 teachers in primary schools, 114,365 were in the State service. Of these last 56,705 were men and 57,660 women. Every girls' school must be taught by a woman, but of the 20,000 mixed schools two-thirds are directed by men on condition that the commune provides a sewing-mistress for the girls. The master of the school in the small communes is generally secretary to the mayor and the whole tradition of France is against handing over to women the education of all but the smallest boys. Mixed schools are considered an economic necessity in very small communes; they are not held up as an educational ideal. There is less competition between the sexes in France than among non-Latin peoples and the provision made for teaching girls reflects this inequality: for instance, in 1901 there were in France 207 higher primary schools for boys and only 95 for girls. On the other hand, the married woman does not forfeit her right to teach and comparative wealth is enjoyed by families where both parents are wage-earners.

To become a primary teacher in France one must, since 1886, hold the *brevet élémentaire* and be at least eighteen if a man, and seventeen if a woman. For two years at least the teacher is a *stagiaire* or probationer; on passing an examination he can then be recommended for a full teachership as *titulaire* by the academy inspector, who alone has the right to appoint and transfer the probationers. The *stagiaires* are chosen in the first place from normal-school graduates holding the *brevet supérieur*, then from those who have failed in the examination but mean to take it again in the next two years, lastly from those without normal-school training. This last category is still numerous, for in some departments the normal schools provide only one-third or one-half the teachers. After two years' probation the *stagiaire* may present himself for the *certificat d'aptitude pédagogique*, and if successful is placed on the eligible list by the departmental council, nominated by the academy inspector and appointed by the prefect. In 1902 about sixty per cent. of the men and fifty-two per cent. of the women had this certificate, the number holding it having risen in the previous five years from 44,523 to 62,820. When *titulaire* the teacher may become head of a school with more than two classes or assistant in charge of a class. In the higher primary schools we find (1) the directors and *professeurs*, all provided with the special certificate for teaching in normal schools and appointed by the minister; (2) the *instituteurs adjoints*, ordinary *titulaires* appointed by the prefect. The normal schools themselves are taught by teachers trained at the *écoles normales supérieures* at Fontenay-aux-Roses and Saint-Cloud, and sometimes by secondary-school masters who wish to avoid a country lycée or collège. The directors of the normal schools are chosen from the ranks of primary inspectors of five or six years' experience.

Payment of Teachers.—Since 1889 all these teachers have been graded into five classes or promotion groups, and since 1902 promotion from the two lowest groups has become automatic after five years' service in each. In the past advancement was, for financial reasons, often scandalously slow and irregular.

Promotion to the two highest grades remains on the basis of merit: throughout, the academy inspector recommends the advancements that are made for the *titulaires;* the higher grades are promoted by the Minister himself after not less than three or more than six years' service in a particular class. Since 1905 the salaries are represented by the following scales, the first for lower, the second for higher, primary schools.

(1) Lower primary schools:

	Men.	Women.
Stagiaires	1,100 francs	1,100 francs
Titulaires, 5th class	1,200	1,200
4th class	1,500	1,400
3rd class	1,800	1,600
2nd class	2,000	1,800
1st class	2,200	2,000 [1]

Teachers in charge of a school with more than two classes receive an extra 200 fr. and an extra 400 fr. if it has more than four classes. Each teacher of a *cours complémentaire* also receives an extra 200 fr.

(2) Directors and *adjoints*, both men and women, in higher elementary schools:

	Directors.	Teachers.
5th class	1,800 francs	1,200 francs
4th class	2,000	1,400
3rd class	2,200	1,600
2nd class	2,500	1,900
1st class	2,800	2,200

Directors and *adjoints* who are *certifiés* to the normal-school *professorat* get 500 fr. extra stipend. If a teacher is absent through illness the State pays his substitute, full pay being paid for three months, and half for the next three. To these incomes, too, we must add the fact that for all teachers the commune must provide a house or an equivalent allowance and also, as we have seen, a residential allowance in towns where the *octroi*, or town-tax on imported food, raises considerably the cost of living. As for pensions, teachers' salaries are taxed five per cent. to provide for their *retraite*, and one may retire on half-pay after twenty-five years' service if one has reached the age of fifty-five. Time spent in the normal school after the age of twenty is counted as service: after this minimum of twenty-five years each year increases the pension by one-fiftieth of the salary. No man's pension may be less than 600 fr. and no woman's less than 500 fr. If the teacher has been married at least six years his widow or minor children receive one-third the amount to which he would have been entitled.

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[1] Raised to 2,500 and 2,400 respectively in the estimates for 1913.

The above scales of payment seem strikingly small, but the standard of comfort is low among the thrifty French. The teacher enjoys security and respect; if in the country he can generally increase his salary by a hundred or two hundred francs as secretary to the *maire*, and his children are educated free in secondary schools. Penalties range from reprimand by the academy inspector to dismissal by the prefect, with the right of appeal to the Minister. In higher primary schools the Minister alone can dismiss. Beyond dismissal lie the rare pains of temporary or permanent debarment from teaching, after a legal trial before the departmental council and with a right of appeal to the Superior Council of Public Instruction. Rewards in the shape of honourable mentions and bronze and silver medals abound. To encourage work in the *cours d'adultes* these medals carry with them money prizes of from 50 to 100 fr.

Turning to the primary schools themselves we find that, whereas by law primary elementary education is compulsory between the ages of six and thirteen, in practice infant schools have been added, called *écoles maternelles* and *classes enfantines*. The former are mixed schools for children between two and six; the latter are intermediate classes between the *école maternelle* and the elementary school proper and must be attached to one or the other; children are admitted between the ages of four and seven.

Écoles Maternelles.—Called before 1881 *salles d'asile*, these schools are much more an adaptation of elementary education to very young children than a real kindergarten. Their teachers have the same qualifications as those in the primary school proper and are without a special training. They succeed in teaching reading, writing, and simple sums, and treat the children with kindness. The whole atmosphere, however, is one of work rather than of enjoyment. But, open as it is from seven o'clock in the summer till seven at night, the school is a real boon to working-mothers, and the *cantine scolaire*, or school kitchen, which gives a free dinner to the necessitous and an absurdly cheap one to the others, is much appreciated. Of 6007 such schools which existed in 1902 in 3399 communes, sixty-one per cent. were State institutions. The teacher, always a woman, has an assistant if there are more than fifty children and always a motherly *bonne*, paid by the commune, to look after the physical needs of the little ones.

Classes Enfantines.—These either continue the work of the *école* *maternelle* in the same building, or more usually provide a *cours préparatoire* to the elementary school in communes that have no mother's school of their own. Where there is neither kind of provision made for young children the elementary school can admit them from the age of five. The teachers of the preparatory course (often a single one helped by a monitor looks after the whole school) are men or women according as the school is for boys or girls.

Elementary Schools.—Buildings.—Regulations insist on certain specified standards of space and lighting. The classrooms are planned for a maximum of fifty pupils and each has a surface allowance of 17 square feet. Sweeping and dusting is done by the pupils in turn, and this practice is universal right up to the normal schools. The walls of the classroom are bare: cloakroom and other accommodation is very inadequate. On the other hand, there is generally a school museum, to which the children contribute, and a school library, too little used. Text-books are few in number: to a large extent they are replaced by the child's own note-book, the excessive use of which is one of the worst features of French primary education. The text-books in use, which, by the way, are paid for by the parent, are very carefully chosen, a list being first compiled by the *titulaires* of each canton, assembled in conference, and then scrutinised and approved by a departmental commission of experts.

Attendance.—Thanks to the efforts of the *commissions scolaires* nearly all French children are now at least registered as receiving instruction, either public or private. The actual attendance is less satisfactory, varying between 87.6 per cent. of the number registered in public schools and 49.8 per cent. in June in the grazing districts of the south where children are used as herdsmen. Again, after gaining the primary certificate between the ages of eleven and thirteen a child is exempt from all further attendance. In case of non-attendance, for at least four half-days a month without proper cause shown, the *maire* reprimands the parent before the school commission, and if the offence is repeated, after his name has been posted up on the town hall, he can be brought before the district judge.

Organisation.—Normally the primary school has three *cours*: the *élémentaire* for children from seven to nine; the *moyen* for those from nine to eleven; and the *supérieur* for those from eleven to thirteen. Often, however, the last of these is missing, since it is superfluous for the elementary certificate: on the other hand, in some schools we find an extra year's course, the *cours* *complémentaire*, consisting of more advanced work for the children of those communes which do not possess a higher primary school. The three main courses are based on a concentric plan, the later ones extending progressively the horizon of the earlier studies. The subjects are: moral and civic instruction; reading and writing; the mother tongue; arithmetic and the metric system; history and geography, especially of France; object lessons and the first scientific notions, chiefly in their application to agriculture; the elements of drawing, singing, and manual training (needlework in girls' schools); and gymnastics and military exercises. With the approval of the primary inspector the teacher arranges his own time-table.

Discipline.—The discipline is semi-military, the pupils marching to and from the classroom in double file and often singing. Corporal punishment is forbidden and detention is rarely used, though supervised preparation hours have been introduced, to suit the convenience of parents, in many schools. The only disciplinary method in vogue is that of good and bad marks which are both distributed with an amazing generosity. There is still too great a tendency in the small understaffed schools to use monitors to teach the younger children. They are not officially recognised, but are a necessity where there are several *cours* under one teacher.

Method.—The method of instruction is always collective or simultaneous, not individual: the children are expected to absorb completely the rather narrow diet assigned them. They take far too many notes of peptonised information down from dictation and commit them to memory. An obligatory note-book for each child is his *cahier de devoirs mensuels*, kept throughout his school course and containing some of his first lessons of each month, corrected by the master and signed up monthly by the parent. Another fetish is the *cahier de roulement*, a class note-book, kept for a day by each pupil in turn and recording that day's work. This is considered invaluable for inspection, since all the teaching is recorded. To an Englishman this incessant supervision and exaggerated machinery of inspection seems, of course, intolerable.

School Hours.—Ordinarily the school day lasts from 8.30 to 11.30 a.m. and 1.0 to 4.0 p.m., with a morning and afternoon break of fifteen minutes each. Thursday is a whole holiday, Saturday a full school day. Besides this, home-work is set, varying in amount from half an hour at the bottom to two hours at the top of the school.

Salient Points of Instruction.—Since 1882 Moral Instruction has been given a foremost place as a substitute for the barren catechism which it ousted. Its success depends, of course, solely on the teacher, but it is too frequently an uninspiring repetition of pious platitudes and copy-book maxims instead of the stimulating emphasis on right for its own sake which it might become. Reading, writing (in round, mixed, and Gothic hands), and map-making are uniformly good, but far too great an appeal is made to the memory in such matters as history and geography. Facts and statistics in themselves are but poor food for the imagination and heart of growing children. Gymnastic instruction, though on the programme, is very inadequate, for there is practically never any apparatus. Swimming is taught on dry land and boxing with an imaginary opponent only. Until the teacher is legally relieved from responsibility for accidents no possible risks will be run, so nothing real and useful is done. Manual training is confined mostly to paper-folding and cardboard constructions, or needlework for girls. In a few districts we find object lessons connected with regional activities.

Examinations.—There are oral and written terminal and annual tests in each class, but the great event is the examination for the *certificat d'études primaires élémentaires*, the possession of which exempts from further enforced attendance and is necessary for entrance to the higher primary schools. The pupil must be not less than eleven in the following September and the examination is conducted by a cantonal commission appointed by the rector. It is both oral and written, the written part being a piece of dictation; two sums; a short composition; a few questions on agriculture or drawing. The oral is even simpler: only those children, however, who gain an average of fifty per cent. marks in the *écrit* are admitted to it. However, about eighty per cent. of the candidates gain the certificate each time: in view of this and of the fact that the examination is based only on the *cours moyen* it will be seen that too high a standard of attainment is not required to secure exemption from school attendance in France.

Summing up, it may be said that while French lower primary teaching is strong within the limits it prescribes and has reduced to three per cent. the number of illiterate conscripts,[1] it is rather uninspiring in its methods and not too aspiring in its aims. Before the war there was a great fall in men candidates for posts as

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[1] In Germany (1910) only 1 per 10,000 could not read or write.

instituteur and as a result women were beginning to take their place in the lowest classes of boys' schools. The crisis was really due to inadequate pay: the estimates of 1913 raised the man's maximum to 2500 fr. and the woman's to 2400, while the *stagiaire* is to begin with 1200 fr. When we contrast the 4125 fr. (3300 marks) attained by the German schoolmaster after 31 years' service we see how inadequate the present advance is, and how badly a dead-lift is here required.

V. HIGHER PRIMARY EDUCATION

The object of the State is to assist, by payment of salaries and building grants, the local authorities in creating public schools with no fees for instruction, where children who are not required immediately to earn money may carry further their general education and a certain amount of hand and eye training. Higher primary schools give a good general education for the life work of the boy or girl. On the other hand, the *écoles manuelles d'apprentissage*, aimed chiefly at teaching trades, were becoming strictly professional schools. Till 1897 these last were under the *condominium* of the Ministry of Education and the Ministry of Commerce; since then their hybrid nature and control have become irksome to the logical French mind and they have almost all either been assimilated to the higher primary schools and remained under the Ministry of Education or been rechristened *écoles pratiques de commerce ou d'industrie* and transferred to the Ministry of Commerce. We shall return to the latter classes in another section: meanwhile let us consider higher primary schools.

Higher primary instruction is included by law as a part of primary education and is given either in schools *ad hoc* or in *cours complémentaires* which are classes of a one-year's course attached to elementary schools. Since the latter often lack their *cours supérieur*, a *cours préparatoire* is often found in higher primary schools in country places. The course proper lasts at least two years; a school is said to be *de plein exercice* if its course lasts three years or more. It must have separate rooms for each school year, a drawing-room, a gymnasium, and a workshop. There are often found *études surveillées* for day-pupils at a small yearly fee, and many have an *internat*, or boarding department, run by the director for his own profit: the boarding fee varies from 400 fr. to 750 fr. a year. State aid is liable to be withdrawn if numbers fall too low. Each higher primary school has a *comité de* *patronage* assigned to it, the members of which are nominated by the rectors. It meets twice a year, supervises the school, its management and appointments, adapts its curriculum to local needs, tries to place its pupils on leaving school, and deputes members to visit the school at least once monthly.

Reverting for a moment to the *cours complémentaires*, these can only exist in the lower schools which have the three *cours* completely organised and whose director has the *brevet supérieur:* the teacher is an ordinary *instituteur:* only children are admitted who have the primary certificate and have been one year in the *cours supérieur*. The director and teacher draw up their own programme for approval (an amazing piece of initiative in French education!) and generally adapt it successfully to local needs. At the end of the year an examination is held, success in which is endorsed on the primary certificate. In 1902 there were 1524 such *cours*, 702 of which were held in private schools. Since such *cours* are at best a makeshift, the present tendency is to encourage the creation of higher primary schools, which, started by Guizot in 1833, numbered 150 in 1843, had dropped to 12 in 1850, had reached 39 in 1874, 256 in 1889, and 306 in 1902 (191 of which were for boys), and which educated 43,628 pupils of both sexes. The number is very small, but France has hitherto refused to provide gratuitous instruction beyond a certain level unless there is a demand and a certain return for it. She is beginning to see that the supply creates the demand.

Curriculum.—Instruction in the higher primary schools is given according to the official syllabus, though much freedom is left in application to local needs. The first year's course is the same for all pupils: with the second year specialisation begins and there are four courses to choose from: general (*i.e.* literary, the course taken by candidates for the teaching profession); commercial, industrial, and agricultural. No school embraces all the last three: a city school will generally have the first two of them, as well as the general course. To all these courses certain subjects are common, such as morals, handwriting, history, civics, physics and chemistry, gymnastics, and singing. In the girls' schools there are fewer hours given to mathematics, the theoretical work in agriculture is omitted, manual training is replaced by sewing, dressmaking, and domestic economy, while hygiene, common law, and political economy are treated from a woman's standpoint. The pupils are recruited at the age of twelve or thirteen and where the demand exceeds the accommodation, as often in the larger towns, there is an entrance examination. At the end of each year there is an *examen de passage*, failure in which often means the dismissal of the pupil: the alternative is to take the year's course over again. With each year there is a great leakage of pupils; in the seven schools of Paris only thirteen per cent. of the boys and twenty-three per cent. of the girls stay more than three years, though the course of the best schools is based on a four-years' school-life.

Scholarships.—These are given by the State, the department, and the commune. The State scholarships are of three kinds: (1) *bourses d'internat*, not exceeding 500 fr.; (2) *bourses d'entretien* for day scholars varying from 100 to 400 fr.; (3) *bourses familiales* for scholars who are boarded in private families where there is no *internat*. These are always of 500 fr. About a thousand are awarded annually on the results of a competitive examination. The examination is held on the same day throughout France in the *chef-lieu* of the department, the examiners being appointed by the rector. Candidates must be between twelve and fifteen years of age, hold the primary certificate, have been revaccinated, and have a good conduct-record. The examination is partly written, partly oral, and is based on the *cours supérieur* of the elementary school: account is taken of family service rendered to the State and of family circumstances, though these are secondary considerations. Grants are made to needy children for clothing outfits, and specially distinguished scholarship-holders under sixteen are occasionally transferred to secondary schools, though the tradition is that the primary and secondary school systems are each complete in themselves. *Bourses de séjour à l'étranger* are granted every year to pupils between the ages of sixteen and eighteen, on the results of a competitive examination and providing that such help is needed. They are confined to those who have followed a commercial or industrial course, "general" students being provided for later on by travelling scholarships for members of the staff of training colleges.

Examinations.—Two examinations are prepared for in the higher primary schools: (*a*) The *brevet simple*, or *élémentaire*, which all must possess who aspire to enter the normal schools, the ambition of most pupils taking the general course. Every pupil must be at least sixteen. The examination takes place on October 1st at the *chef-lieu* of the department, and the standard is not very constant nor, as a rule, very high.

(*b*) *The Certificat d'Études Primaires Supérieures.*—Here the standard is high and failures frequent. The examination covers the work of the whole course and is divided into three parts: written, eight hours; oral, one hour; and practical, four hours. In 1904, out of 6095 candidates 3561 passed, the percentage of success among the boys between 1901 and 1904 being less than fifty-six, while seventy per cent. of the girls obtained the certificate. The written examination is held at the school, the oral and practical at the *chef-lieu* of the department. Since 1903 this certificate or that of the *écoles pratiques d'industrie* is required of all candidates for the *écoles nationales d'arts et métiers*, the great national technical schools.

After-Careers of Pupils.—The following figures for the years 1889-1898 will explain themselves:

Agriculture has furnished	10,636	pupils and has received	6,824
Industry ,, ,,	18,728	,, ,, ,, ,,	17,680
Commerce ,, ,,	14,033	,, ,, ,, ,,	12,146
Technical schools have furnished	—	,, ,, have ,,	5,138
Primary sch. teachers ,, ,,	3,243	,, ,, ,, ,,	6,204
Minor officials ,, ,,	10,854	,, ,, ,, ,,	7,018
Unknown ,, ,,	4,192	,, ,, ,, ,,	6,676
	61,686		61,686

General Criticism.—While the higher primary schools in the great cities seem uniformly good and well equipped, there are several features in the system which are unsatisfactory. The *internat* is, of course, a standing blot and in these schools it is of a particularly mean and depressing type, though ball games are gradually being introduced. The chief defect, however, is the tendency to overwork, especially in the last year, through fear of failure in the examinations. The schools, as all French schools, are over-inspected, often being visited by the *inspecteur général*, the *recteur de l'académie*, the *inspecteur de l'académie*, and the *inspecteur primaire* all in one year. The school teaching day is too long, 8.0 to 12.0 in the morning and 1.0 to 4.0 in the afternoon, with only a quarter of an hour's break in the middle of each. The attitude of the masters towards the boys is, as always in France, too official. On the other hand, there is a high standard of efficiency in teaching and there is no doubt of the utility of these schools. They aim at raising the capacities and widening the outlook of the lower middle class and the more comfortable artisans. That they should be widely extended is evident when we consider that they only educated 43,628 pupils in 1902, while in the same year 206,930 children succeeded in getting their primary certificate. One in four is an inadequate percentage of French children worth more than the minimum of instruction. The present *projet de loi*, which we shall consider later, on the continued education of the adolescent is a welcome, if belated, recognition of this truth.

VI. THE PRIMARY NORMAL SCHOOLS

Lack of space forbids any historical, or indeed any attempt at full, treatment of the French normal schools, in which the teachers are trained. What follows will be almost entirely concerned with the training for the average teacher of the lower primary schools. Since 1879 each department has to support two normal schools, one for boys and one for girls, though in six departments, through the small numbers of pupils, an amalgamation has taken place. About two-thirds of the teachers only are trained in this way: the rest have received no professional training. The expense of these schools is shared, the State paying the teachers and the cost of boarding (about 1000 fr. a year equally divided between the two), and the department providing the material equipment, and often clothing and annual excursions besides. The teaching force is generally a director and four professors, two of letters and two of science: a third science teacher is added if the school has more than sixty pupils. Besides these there is an *économe* and special teachers for the modern language chosen, drawing, music, gymnastics, and agriculture. In the same category as the full professors comes the director of the *école annexe*, or practising school, if one is attached. The director of the normal school must be at least thirty and have a special certificate as well as that for the *professorat* in the normal schools. Almost always he has some first-hand knowledge of primary schools, having been, for at least five years, a primary inspector. On the other hand, the professors may have passed direct from the higher normal schools and be entirely without elementary-school experience. This is a serious defect. Only the director and specially appointed *surveillants* live on the premises. A director's pay ranges from 3500 fr. to 5500 fr., a directress's from 3000 fr. to 5000 fr., while men teachers are paid from 2500 fr. to 3400 fr., women from 2200 fr. to 3000 fr.

To enter a normal school a candidate must (1) be between sixteen and eighteen; (2) hold the *brevet élémentaire;* (3) sign on for ten years' State service; and (4) be physically fit. The written tests are followed by others, which are held at the normal school:

the rector decides on the admissibility. The life inside the school is hard and monotonous: as in the lycée we get bare dormitories, long hours (seven hours' teaching a day), separate study rooms for each class, little liberty and initiative. The boys and girls themselves sweep out the rooms in turn, in squads. Games are rare and not popular. Failure at the end of each year to pass the *examen de passage* involves withdrawal from the school. Such a failure is very rare, but its possibility over-stimulates the pupils and leads to overwork. The curriculum is uniform for all France, whatever the type of school to which the pupil is destined. The official programme dictates the number of hours to be given to each subject, though the director distributes them as he wills, assigning the more difficult subjects to the morning periods. In literary subjects boys and girls have the same programme: in other subjects there is adaptation to sex. The general aim of the instruction is to give sound general information rather than advice on teaching. There is the usual tendency to excessive passivity of the pupil while the teacher lectures, to over-use of the note-book, and to inadequate use of text-books. Omitting the general subjects from comment, a word must be said about the more professional studies. Psychology, morals, and pedagogy are taught, for two hours a week each for one year, by the director himself. The *morale* instruction is on a high ethical plane and adapted to the sex of the student; the psychology is "static"; the pedagogy is relegated to the last two terms of the third year and is rather superficially treated.

Practical Training.—This is given either in the *école annexe,* an integral part of the normal school, reproducing according to its locality the typical conditions under which the student will one day teach, or in the *école d'application,* an ordinary school of the commune specially designated for the purpose. The former schools are in the great majority, though the latter are now viewed with more official favour. In the *école d'annexe* the student gets some practice in teaching without direct supervision: on the other hand, conditions are less artificial in the *école d'application.* By the new regulations of 1905, the *brevet supérieur* must be taken at the end of the second year (this leads inevitably to overwork) and the professional training is given in the third year only. There is an examination at the end called the *examen de fin d'études normales.* It is unlikely that this separation between theoretical and practical teaching will be productive of the good anticipated: teaching powers are now tested too late in a candidate's probation.

Criticism lessons are given in turn and, too infrequently, model lessons.

Examinations.—To sit for the *brevet supérieur* the candidate must be eighteen: he need not be a normal student. Possession of this higher diploma is a *minimum* requirement for the headship of a primary school with a *cours complémentaire*, for teaching this *cours*, and for teaching in the higher primary schools. It confers an advantage on all candidates for school work. Over sixty per cent. of the normal students and less than fifty per cent. of outside students succeed in passing the examination which is held twice yearly. The *certificat d'aptitude pédagogique* is, as we have seen, taken after at least two years' school teaching, with a reduction of time-qualification for normal students. It is passed by about forty-seven per cent. of the candidates, and is divided into written, oral, and practical tests. Possession of the *certificat de fin d'études* exempts from all but the last of these.

Higher Normal Schools.—For men the higher normal school, which furnishes the teaching force for the lower, is at St. Cloud, for women at Fontenay-aux-Roses. The course at the former lasts two, at the latter three, years. There are about forty-eight students at each, who are not only kept but paid, men getting 240 and women 200 fr. per annum. Fontenay receives most of its students from secondary schools, St. Cloud from primary. Fontenay prepares for the headships as well as the professorate of normal schools, St. Cloud for the professorate only, since directors are chosen from the primary inspectors. Here at last we find quite reasonable liberty for the women and men alike. To enter, candidates must be between eighteen and twenty-five, hold the baccalauréat or the girls' secondary diploma, and sign on for ten years' State service. The examination is competitive and aspirants to this work are many. At the end of the school course, which is very specialised in its training for science or letters as alternatives, the examination for the *certificat d'aptitude au professorat des écoles normales* is taken. Failure is rare, for the teaching is by experts and the professional training thorough. The entire cost of these higher normal schools, 315,500 fr. in 1905, is borne by the State.

VII. SECONDARY EDUCATION OF GIRLS

France has a noble tradition of great women writers, but State higher education for girls is a very recent growth. Before the Revolution almost entirely monastic and narrow, under

Napoleon confined in its provision to a small minority, almost monopolised by private enterprise during the greater part of the nineteenth century, only in 1867 under Duruy's ministry is girls' higher education recognised as an important and urgent State undertaking. A beginning was made by the formation of an "Association for Girls' Secondary Education" which organised secondary courses extending over three years for three afternoons a week and leading up to a diploma. Such courses, under a directress and taught by *professeurs* from the boys' schools, are still common to-day, though they now prepare for the brevets and cannot grant the diploma. Other courses have grown into collèges and even into lycées. In 1880 the success of this movement led to the establishment of State secondary schools, with boarding departments at the charge of the principal or town. The purely day schools are now only to be found in Paris: in 1907 there were forty-seven lycées with 16,760 pupils in all, sixty-one collèges with 10,184 pupils, and sixty-three secondary courses with 6899 pupils. The fees are lower than for boys, varying from 40 to 110 fr. a year for day girls (200 to 300 fr. in Paris) and generally increasing as the girl advances. In 1908 the State spent under two million francs on its forty-seven lycées, and in many towns a discarded boys' school has been used for the girls. But such buildings as the Lycée Racine in Paris and the Lycée Fénelon at Lille are among the best in France and have set a lead that will be followed.

Public schools for girls are exactly like those for boys in organisation, administration, inspection, and the appointment of teachers. The only outward difference is in the course and diploma. The secondary course proper extends over five years, from the twelfth to the seventeenth, though a few lycées add a sixth year to prepare for the Normal School at Sèvres. The five-years' course is divided into periods of two and three years. In the first *cycle* all the subjects are compulsory and the course leads up to the lower diploma, the "certificate of secondary study." The second *cycle* leads to the *diplôme de fin d'études secondaires*, the examination for which is based upon both compulsory and optional subjects, the choice in the latter lying between a second modern language and mathematics. There is no comparison between the standards of the diploma and of the baccalauréat: the former is much easier and is likely to remain so, although baccalauréat courses will probably be established in certain schools for candidates for liberal professions other than teaching. As in boys' schools we find everywhere preparatory departments, the curriculum of which the directress draws up herself, subject to the approval of the rector. The weekly hours of classroom work vary between fourteen and seventeen in the elementary classes, average about twenty in the *premier cycle*, and reach twenty-five in the *second cycle*. The programme is entirely modern, no Latin being taught, though an hour a week in the fourth year is compulsorily devoted to the study of ancient literature through translations. One modern language begins with the infants (aged eight) and continues throughout the course, a second being added optionally for the last two years. Except for specialists mathematics are limited to arithmetic and plane geometry. The sewing, which becomes optional in the *second cycle*, is a great feature, special care being given to repairing.

The girls are drawn almost entirely from the middle and professional classes since the *haute bourgeoisie* patronises the private schools. Commerce and industry are fed by the primary and professional schools: in the secondary schools rather more than half the girls leave after the first cycle. Those who earn their own living in after-life (a thing still regarded as unwomanly by *bourgeois* convention) proceed to the university or higher professional schools, others who aspire to teaching prepare for Sèvres. The whole tone and atmosphere of a girls' school is different from that of a boys' lycée. Cheerfulness and human relations between teacher and taught are the rule: there is more playtime and more liberty. Most schools have cubicles for their boarders, and have bright and decorated classrooms. There is, moreover, not the same strain and overwork, since the certificates are less important for the future career of the pupil.

Teaching Force.—Since the normal school at Sèvres was started in 1883, women teachers have gradually and almost entirely replaced the men, who were at first a necessity. The academic qualifications have been raised considerably as well, the agrégation being now demanded for appointment as a full professor in a lycée, though, as in boys' schools, lower credentials are often accepted. There are now four agrégations for women, letters, history, mathematics, and physical-natural sciences: this examination, since 1884, has been taken at Sèvres at the end of the third year, the certificate for teaching in girls' secondary schools being sat for a year earlier. Candidates for this beautiful normal school must be between eighteen and twenty-four and have the secondary diploma, the bachelor's diploma, or the *brevet supérieur*. The written examination is held in the departmental towns, the oral in Paris. In 1907, sixteen vacancies in letters and fourteen in science were filled by election to Sèvres. At the school the first year's work is relatively easy and the life throughout is happy, each student having her own room and much liberty. Nearly all Sèvres women succeed in the certificate at the end of the second year: the few who fail have to leave the school and teach in provincial colleges till they succeed, when they return for their third year. The students are now, like the men, made to spend some little time in gaining experience in the lycées. The competition for the *agrégation* is very severe, for the number of appointments is very limited: candidates must possess the secondary certificate or the *licence*.

To sum up, girls' public secondary schools are one of the brightest and most promising features of French education. In their whole spirit and atmosphere they set an example which the boys' schools may well follow: they endeavour to avoid overwork and the attitude of the teacher is that of a friend rather than a task-mistress. As M. Gréard says, "Girls' secondary education lent itself much more easily than boys' to novelties, being itself a novelty."

VIII. TECHNICAL AND COMMERCIAL SCHOOLS

Perhaps in no direction has France more leeway to make up than in her technical instruction for the rank and file. Industrial students in Germany are reckoned at 400,000 and commercial at 48,000. Now if we add together all the public and private schools for technical education in France we hardly reach a total of 70,000 pupils, or less than ten per cent. of the total number of adolescents under the age of eighteen employed in trade or commerce. It is especially in the lower grades of "professional" training that the disparity is felt. When we add the "crisis of apprenticeship," due to the specialisation of modern industry and the decay of the old personal training, we find the country faced with a pressing problem. Happily recent legislative proposals show that France is determined to find an adequate solution.

Higher Technical Schools.—Before 1892 the Ministry of Commerce had charge only of the higher and middle grades of technical education. Since then, as we have seen, the lower grade has been handed over also to this Ministry, and in 1900 it received the control of the four national professional schools which were founded as model schools of apprentices. At the head of the higher technical schools came two important institutions, the *Conservatoire nationale des arts et métiers* and the *École Centrale*. The former was founded in 1794 and now serves the double purpose of a national museum and an educational centre for students whose time is mortgaged by their employment during the day. For these it provides twenty-three specialised evening courses. The Central School, founded in 1828, became in 1857 a national school of engineering, with a three-years' course and twenty professors. Its students are prepared, not for government service, but for private enterprise. Commercial education of the highest type has been started by chambers of commerce and municipalities and recognised by the State, which controls the teachers, approves the curricula, and awards the diplomas. These higher commercial schools, now fifteen in number, are more and more adapted to local needs and enjoy a wise autonomy. The Paris school may be taken as a standard: it aims at providing (*a*) a five-years' course of complete commercial instruction; (*b*) a three-years' course of practical commercial training for those who must enter business life early; (*c*) a two-years' course of higher, but practical, commercial education for ex-secondary pupils. Perhaps 3000 to 4000 students are in receipt of this higher technical instruction in the whole of France.

Middle Technical Schools.—Secondary technical instruction is given in France by the *écoles d'arts et métiers* at Châlons-sur-Marne, Aix, Angers, Lille, Cluny, and, since 1912, at Paris. Boys are admitted between the ages of fifteen and seventeen after a competitive examination. Each school, except that at Paris which is a day-school, receives 300 boarders for a three-years' course: Paris affords as well an extra year's voluntary training for those who have received the diploma at the end of their studies. The aim of these schools is to educate foremen and managers who are trained artisans.

Primary Technical Schools.—At the head of these come the four national professional schools of Armentières, Vierzon, Voiron, and Nantes which aim at educating artisans and foremen in industry, and also at preparing for the competitive examination for admission to the national schools of arts and trades. The boys are boarders, half-boarders, and day boys, and pay accordingly from 500 to 600 fr., from 250 to 300 fr., or nothing. All these schools have courses in iron and wood work, but each specialises in giving theoretical and practical training in regional industries.

Analogous schools are those of watch-making at Cluses and Besançon. Next come the *écoles pratiques de commerce et d'industrie*, which aim at preparing their pupils for business or the work-shop, while giving at the same time by a limited general education a basic understanding of the problem aimed at by the practical work. They replace the old, discredited apprenticeship by offering well-grounded assistants in commerce and artisans capable of becoming foremen in trade. They are established by municipalities, communes, or departments and receive State aid. In 1910 there were sixty-six such schools, fifty-three for boys and thirteen for girls, educating 10,350 boys and 2858 girls. The girls' schools train for both business and handicrafts: thirty-six of the boys' schools train for both also, but sixteen specialise in industry only and one in commerce. In either case the training is adapted to local needs, while the girls are educated for the home or for flower- or dress-making. All such schools prepare for the *certificat des études pratiques commerciales et industrielles* granted at the end of the three-years' course.

Thirdly, we must take into reckoning the notable contributions of towns and chambers of commerce to this enterprise. Paris alone maintains seven boys' schools for special industries and eight technical schools that prepare for recognised trades for women; it would take too long to give a list of such provincial schools as the *École Martinière* at Lyons which have a similar function. The State to-day subsidises about 400 such technical courses throughout France. About 40,000 to 45,000 students follow technical evening-class work, about 13,000 are in the *écoles pratiques*, about 1500 in the four professional schools, 3500 in the Paris lower technical schools, and about 5000 in private schools; in all, as we have seen, a total of less than 70,000 pupils.

Naturally France is dissatisfied with this result and recent legislature points towards a great advance. By the *projet de loi* of 1905 we see foreshadowed the compulsory establishment of daytime gratuitous technical instruction by all communes above a certain size; the institution of certificates of aptitude at the end of each year; the compulsory granting by employers of permission to follow these courses during working hours. Schemes for a logical system of local, departmental, and general councils to supervise technical instruction on the same general administrative lines as are to be found in primary education are also to the front, and a normal school at Paris for the training of expert technical teachers is, in law at least, at length a realised ideal. France is taking very seriously her inferiority to Germany in applied science. She has recognised that a dead-lift is necessary to decuple the quantity, while improving the quality, of the technical training of her people. There is no doubt about the ultimate result.

IX. CONTINUED EDUCATION

In sharp contrast with Germany we find in the France of yesterday no adequate attempt on the part of the State to provide systematic and compulsory instruction for adolescents. We shall see below that a very comprehensive and statesmanlike measure has recently been officially submitted to Parliament to solve this pressing problem. Meanwhile let us review briefly the condition of things before the war.

Adult schools (*cours d'adultes*) have been in existence through private or municipal enterprise for a hundred years: in 1869 they numbered 28,172 with an attendance of 800,000. In 1884 a ministerial decree organised them throughout France, but too great hopes were put for the moment on the all-sufficiency of the primary school and in 1894 these adult schools numbered only 8228. Since then there has been a rapid revival, resulting in the existence of 54,351 such schools when the war broke out in 1914. To this total we can add about 5000 technical classes, *cours professionnels*, organised by syndicates and other bodies. The total attendance is nearly a million. Since 1887 the minimum age for attendance has been lowered to thirteen: except in the large towns these *cours d'adultes* are mixed schools. The length and frequency of the classes are left to local option: there is as yet no legal obligation to attend. Certificates are given to regular scholars and their value is recognised by employers. In 1907 the State grant only amounted to 350,000 fr. and about the same sum was received from private subscriptions. The burden falls therefore on the towns and departments, which in 1903-4 gave subsidies to the value of 1,751,211 fr., and most of all on the primary teachers, who since 1895 have been deprived of the paltry 150 fr. a year which had previously been assigned to those engaged in this voluntary extra work. The State contents itself with honorary rewards, some towns pay a small subsidy, thirty departments refuse all help. In some cases the teachers themselves defray the cost of lighting and heating. It is an amazing state of affairs.

The *cours d'adultes* is usually held between 7.0 and 8.30 p.m. on two or three nights a week and lasts from late autumn till Easter.

Sometimes a summer Sunday-afternoon course is organised. These classes have gradually been divided into three types: (1) those for the illiterate who are generally ashamed to make use of them; (2) continuation classes proper, *cours complémentaires;* and (3) technical classes, *cours professionnels.* The *cours complémentaires*, like the higher primary schools, develop the work of the elementary school, and besides giving useful general instruction, give special training adapted to local needs, teaching such subjects as agriculture in the country, and shorthand, book-keeping, drawing, and arithmetic in the towns. By 1902-3 these schools had reached the number of 15,354. The *cours techniques* represent for working adolescents and adults what the *écoles professionelles* and the *écoles de commerce et d'industrie*, which are all day schools and limited in number, stand for in the technical training of the young who are not forced immediately to become wage-earners. In number about 5000 and owing their existence to private enterprise, they are held in the evenings and on Sunday mornings. Their teachers are artisans and their object is to give manual workers a knowledge of the scientific principles which underlie their practice. Each trade is provided with its special equipment and there is much training in experimental science. The success of this admirable movement is shown by the fact that in 1905 1300 students applied to enter the courses organised in the manual training workshops of twelve Paris schools. Unhappily there was room for only 1000. Every Thursday the artisan teachers are themselves trained.

Other Educational Agencies.—(*a*) Libraries are nominally established in each primary school and subsidised by the State to a small extent. In 1902 they numbered 43,411, but there were in 1898 still 30,000 schools without them. In 1902 there were 2911 municipal libraries, besides the seventy-eight in Paris. All over France, however, libraries still suffer from lack of funds.

(*b*) Lectures and public readings. The lectures, *conférences*, are given by the staff of the schools and in 1903-4 as many as 110,842 were given to an audience of 3,000,000. Lantern slides are posted free and distributed by the *Musée Pédagogique* in Paris. The public readings are a more recent development. Societies have been formed to tour the provinces and interest artisans in the great modern writers.

(*c*) *Societies for Educating the People.*—In France these are literally legion and space available is unhappily in inverse ratio to their utility and importance. To name only a few of the most famous: the *Association Philotechnique* had in 1900 714 classes and 13,000 students of technical subjects; the *Société d'Enseignement Moderne* had 726 classes and 14,211 students; the *Union Française de la Jeunesse* had an attendance of 9000, the *Association Philomathique* of 7500. These figures refer to Paris only. The provinces have affiliated branches and innumerable societies of local origin, which often combine physical and mental training and give great encouragement to social intercourse besides. Especially active are the Catholic *patronages* which embrace all these objects. Special mention must be made here of the *Universités Populaires*, started in Paris in 1899 for higher education and mutual improvement, and rapidly spreading in the provinces, until in 1903 there were nineteen in Paris and 138 in the rest of France. They aim at informal discussion of political and social problems, at educational lectures, and at artistic cultivation. In Paris they are essentially working men's clubs though often instituted by university men and, except the Catholic *Universités Populaires* started in rivalry, of a distinctly syndicalist and advanced atmosphere. In the provinces, on the other hand, they seem to have more strictly educational objects and the opposition they encountered from the *bourgeoisie* has made them go slowly and consolidate their position. Owing their initiative almost entirely to working men and managed by them, they have much in common, in their spirit and activities, with the English Workers' Educational Association. Financially they are flourishing, whereas high rents and a moving population cause in Paris one unending financial crisis.

In spite, however, of all these signs of life and expanding energy, especially on the part of private bodies, in educating the people, France, like England, has for some time realised that only the State can make continued education really effective. The war and the economic problems that it has brought with it have provided the urgency which transforms ideals into actuality. Just as 1870 resulted in the compulsory education of the child, so this present war is certain to result in the compulsory education of the adolescent. On March 13, 1917, M. Viviani, then Minister of Education, submitted to Parliament a *projet de loi* which indicates clearly the intended line of advance. It is so important that I shall venture to deal with it at some length.

The object of the law is to produce good workmen, good citizens, good soldiers. It aims, therefore, at instituting throughout France a compulsory continued education which shall be at once technical, general, and physical. The collaboration of the countless private societies is invited. The courses will last from October to March each year and will be of two grades. They will be given in the school, which must provide a library and suitable and attractive accommodation, towards the cost of which the State will contribute. The lower or junior grade will be for boys between the ages of thirteen and seventeen and for girls between thirteen and sixteen. All will receive *general* instruction in French, history, and geography: in the country the boys will be technically trained in agriculture, theoretical and experimental, while the girls will learn housewifery and sewing. In the towns technical or commercial instruction will be given and nautical instruction in maritime districts. The higher or senior grade will be for adolescents, if boys between the ages of seventeen and twenty, if girls between the ages of sixteen and eighteen or marriage if it comes earlier. The general education will here be more in the nature of lectures on civics, common law, or domestic economy. The physical training is given on Sundays. For boys it consists of games, walks, shooting, and in the senior grade, *for boys over seventeen only* (this is instructive on the part of a great military nation), military preparation will be given. For girls this training is replaced by practical housewifery and instruction in hygiene, medicine, and the care of children. The general and as a rule, in the country, the technical education will be in the hands of the primary teachers, who will have their school day reduced by half an hour and will receive two months' long vacation. In return they are expected to give at least 150 hours a year to continuation work. More than 200 hours' teaching will be paid at the rate of 100 fr. for each fifty hours (to a foreigner these rates seem insultingly small). Higher primary teachers are paid at the usual rate for extra hours' work; auxiliary masters either give their services or are paid by the private societies or the municipalities. All teaching is free and the teachers must be certified or have proper guarantees in the way of diplomas. In the junior course a minimum of fifty hours' teaching a year is assigned to general education, of 150 to technical and of 100 to physical. *The time must be taken off from the working day, at the beginning or the end.* Children who are in receipt of higher instruction up to the age of eighteen or are certified as physically unable to profit are exempt. Passing an examination at the end of the third year exempts boys from the fourth year's junior work. In the senior course general education receives a minimum of 100 hours a year and physical a minimum of 100. There is no obligatory technical training. Success in an examination at the end of the second year exempts young men from the third year's schooling.

Private societies are given three options: (1) they can have *independence*, provided they follow the same programmes and submit to inspection: (2) they can have *alliance*, the society providing the teaching, the State the material equipment; (3) they can have *union*, the State providing the course and necessary teachers in return for the active and sympathetic collaboration of the society in the general welfare of the students, exercising much the same *patronage* to the continuation school that the societies of *anciens élèves* and *amis de l'école* give to the primary school.

An elaborate machinery of committees is set up, the lowest being the *commission locale de l'enseignement postscolaire* in each commune, which inspects private, and organises public, courses and warns defaulters. Above these are very representative departmental and general commissions. The inspection of the agricultural, technical, and military work is conducted each by its own Ministry. The State, department, or commune can give necessary subsidies to private societies. Sanctions to secure regular attendance are provided by giving to each child a *livret scolaire* or school record which shows his educational career between the ages of six and twenty. Any public agent can inspect this. Small fines of 5 to 15 fr. are to be inflicted on junior absentees for each offence: older pupils are more severely dealt with and lose besides, as do army delinquents, all access to public employment and the right to receive public decorations.

Such is this very thorough and workmanlike scheme which seems sufficiently national in its spirit and wide in its outlook to meet with the success it merits. Nothing less comprehensive will give the dead-lift needed if France is to hold her own in economic competition.

I cannot refrain, before concluding this chapter, from mentioning the growing success of the boy scout (*éclaireur*) movement in France. Although not indigenous it has made a real appeal to the French boy. Between 1912 and 1914 the numbers grew from 1500 to 10,000 and the war has made full use of their youthful patriotism. Scouting provides just those qualities of initiative and physical hardiness which French education has neglected. By its badge-work and club-room life, and most of all by its camping and spirit of adventure, it will probably prove a useful leaven in the public organisation of continued training: it will certainly have an excellent formative influence on those boys of the rising generation who come under its spell.

X. CONCLUSION

Such then, in rapid summary, is the French educational system, as it stood before the war. I began by saying that nations are always superior to the systems they elaborate, for the spirit has the habit of evaporating and the paralysing grip of the dead hand of the past is wont to cling to the throat of reform. This is surely true of France where, if a foreigner who loves her may be excused the impertinence of criticism, we get so much intellectual competence combined with so little humanity of control. The machine is still over-centralised. too bureaucratic, too systematised, too inelastic, too uniform; apart from the universities the teachers are too magistral, too official; over-inspected as they are, they aim at an inhuman competency within prescribed limits; the free workings of the spirit, "soul kindling soul at the living fire of thought," cannot easily survive in such an air. In considering secondary schools we are tempted to admire their splendid teaching and deplore their educational sterility. A boy is more than a receptive mind, and French boys more than most would instinctively respond to the lead of masters who were filled with the genuine pastoral spirit which seeks to develop body and character as well as intellect. The most satisfactory feature is, perhaps, the university training with its unfettered freedom, its keen intellectuality, its erudite instruction, its genuine love of truth and energy in research. Within their limits, too, one must admire the thoroughness of the primary schools which have produced a high level of pronunciation and of ability to conduct the ordinary affairs of life. Were the teachers adequately paid and given a freer hand there are no elementary schools that could be better, for the French have an equal gift of clear exposition and of ready understanding. Up to now lower technical education is inadequate in its provision for the needs of a great commercial nation, but there is a good prospect of this deficiency being made good. The new scheme for the institution of compulsory continuation schools is masterly and sane, and likely to be of enormous benefit to the country. It may be said, in brief, that the worst feature of French education is the present system of boarding-school life for boys, that its best features are its always competent, and often brilliant, teaching and its careful adaptation of means to the ends it has in view. If only France will bury its rusty hatchets of religious and secular bigotry and place education outside politics as a sphere in which all schools of thought and sentiment shall collaborate in the production of healthy, happy, and useful citizens, the State giving a lead, but allowing all reasonable freedom to individual enterprise and disinterested endeavour, then we shall see realised a national education, varied in its particular outlooks and its individual methods, but united in its ideal to train men, in the widest and deepest sense of the word, for the service of their country and the world.

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CHAPTER V

EDUCATION IN CANADA[1]

I. INTRODUCTION

THE unique characteristics of Canadian education are mainly the reflections of her stage of economic development. Pioneering is not only " writ large " in Canadian history, but it is still playing an active part in her modern life. Canadian farms are still being carved out of dense bush or ploughed from the virgin sod of the prairie, while the exploitation of Canada's immense mineral and other resources has not progressed beyond that of mere infancy. Nor can it at present be otherwise. Canada is a big country of vast resources, settled in the sparsest of fashions.

From a point on Lake Erie in the latitude of Madrid and Rome, Canada stretches to within a few hundred miles of the North Pole; from east to west her width is more than 3000 miles. Her area is 3,739,665 square miles, which—omitting Greece—is the area of the continent of Europe. Canada thus comprises about one-third of the total area of the British Empire.

Her natural resources remain almost untouched. Although harvesting in 1915 the following crops in bushels: wheat, 376,303,600; oats, 520,103,000; barley, 53,331,300; rye, 2,394,100; peas, 3,478,850; beans, 723,400; buckwheat, 7,865,900; flaxseed, 10,628,000; mixed grains, 17,523,100; potatoes, 62,604,000; corn for husking, 14,368,000; as well as vast quantities of other crops, the whole being valued at the vast sum of $797,669,500, it was, nevertheless, estimated that not more than one quarter of the arable area was under cultivation at the time. In the same year the mineral production was valued at $138,513,750; fisheries at $31,264,631; while the estimated value of the dairy products was in the neighbourhood of $80,000,000. The real significance of these figures only becomes apparent when taken in conjunction with the statistics of population.

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[1] In this brief summary of Canadian education Ontario receives the major portion of attention, and for several reasons. Of all the provinces comprising the Dominion of Canada, it is the richest, most populous and most influential. Its educational system is the oldest, most highly organised, and has naturally served as a prototype for many of the others.

During its preparation I have received much valuable criticism from Dean W. Pakenham, Faculty of Education, University of Toronto.

According to the census of 1911 the population of Canada was 7,206,643, or fewer than two persons per square mile. Even if allowances are made for the great areas of northern Quebec, Yukon, and the Northwest Territories, which, lying as they do beyond the wheat line, can never maintain a large population, the indubitable fact remains that the country could easily support a population many times as great. The present-day population of Canada is uniquely distributed, nearly the whole of it being found within the strip of land, less than 200 miles in width, which lies along the southern boundary. That the population is also very mixed in character can be seen by a study of Table I. which gives the salient facts regarding the distribution and racial origins of the people at the time of the last census.

The table shows that the population of Canada is largely of British and French origin, 55 per cent. British and 28.5 per cent. French. The remainder is made up of people of German origin (5.5 per cent.), other Europeans (6.3 per cent.), and people of various origins (5.6 per cent.). The French-Canadians are found mainly in Quebec, although there are French settlements in western and northern Ontario, in the maritime provinces, and wherever lumbering is carried on. They cling tenaciously to their religion, their language, and their customs, thus creating almost insuperable educational problems in provinces other than Quebec. Except in Quebec, people of British stock predominate everywhere. The non-English-speaking immigrants of Canada have settled largely on the prairie lands of the middle-west. Both Saskatchewan and Manitoba have large colonies of Icelanders, Ruthenians, Poles, Austrians and Germans. Many of Canada's most urgent yet delicate educational and political problems are caused by these foreign settlers.

Of Canada's population in 1911 only 78 per cent. was native-born, 7.21 per cent. English or Welsh, 2.35 per cent. Scotch, 4.21 per cent. American, and the remainder German, Austro-Hungarian, Russian, Chinese, etc. The increasing numbers of English-speaking immigrants during recent years, as can be seen from Table II., remain a matter for congratulation.

TABLE I

Origins of the People and their Distribution

	Yukon	N.W.T.	Alta.	B.C.	Man.	N.B.	N.S.	Ont.	P.E.I.	Que.	Sask.	Totals.
British :												
English	1,200	299	97,955	133,186	122,798	106,017	177,701	884,432	22,176	153,295	124,091	1,823,150
Irish	649	28	36,739	40,642	58,463	74,570	54,244	608,137	19,900	103,147	53,865	1,050,384
Scotch	1,032	173	54,884	74,493	82,861	47,949	145,535	424,873	36,772	58,305	70,753	997,630
Others	48	3	3,120	4,362	2,290	1,360	1,220	9,657	101	1,106	2,301	25,568
French	482	226	19,825	8,907	30,944	98,611	51,746	202,442	13,117	1,605,339	23,251	2,054,890
German	412	5	36,862	11,880	34,530	3,144	38,844	192,320	550	6,145	68,628	393,320
Austro-Hungarian .	105	14	26,427	7,015	39,665	73	1,089	11,771	4	1,289	41,651	129,103
Belgian	18	2	1,269	938	2,453	76	555	633	8	2,103	1,538	9,593
Bulgarian and Roumanian	13		956	219	123	101	26	1,483		618	2,336	5,875
Chinese			1,787	19,568	885	93	132	2,766	6	1,528	957	27,722
Dutch	14		2,951	1,255	2,853	4,320	4,179	35,012	213	1,505	2,684	54,986
Greek	18		129	810	317	40	114	1,304	39	768	55	3,594
Hindu	1		3	2,292	13	2		17		14		2,342
Indian	1,489	15,904	11,630	20,134	7,876	1,541	1,915	23,044	248	4,993	11,718	100,492
Italian	61		2,139	9,721	972	384	960	21,265	23	9,576	310	45,411
Japanese	74		247	8,387	5		4	35		12	57	8,821
Jewish	41		1,486	1,265	10,741	1,021	1,360	27,015	38	30,648	2,066	75,681
Negro	31		979	473	209	1,079	6,541	6,747	81	401	336	16,877
Polish	34		2,243	561	12,310	67	535	10,602		3,228	3,785	33,365
Russian	105		9,421	6,896	8,841	60	601	12,618		1,684	18,413	58,639
Scandinavian . . .	672	9	28,047	15,968	16,419	1,479	912	8,250	32	1,756	33,991	107,535
Swiss	21	1	1,200	796	396	63	746	1,930	2	397	1,073	6,625
Unspecified	1,992	1,817	34,364	22,512	19,647	9,839	3,377	36,921	418	10,075	28,573	169,535
Totals	8,512	18,481	374,663	392,280	455,611	351,889	492,336	2,523,274	93,728	1,997,932	492,432	7,201,138

TABLE II

Immigration into Canada

Year.	British.	United States.	Other Countries (mainly European).	Totals.
1906	86,796	57,796	44,472	189,064
1908	120,182	58,312	83,975	262,469
1910	59,790	103,798	45,206	208,794
1912	138,121	133,716	82,406	354,243
1913	150,542	139,009	112,881	402,432
1914	142,622	107,530	134,726	384,878
1915	43,276	59,779	41,734	144,789
1916	8,664	36,937	2,936	48,537

Citation of Canada's distances and the varied character of her population does not give the whole story of the basic difficulties which confront her educational administrators. The problem of religious faiths is ever before them, since the religious denominations of Canada are more numerous than her constituent races. Fortunately, however, for ease of administration, four denominations claim the religious adherence of 84 per cent. of her population—Roman Catholics 39.31 per cent.; Presbyterians 15.48 per cent.; Methodists 14.98 per cent.; and Anglicans 14.47 per cent. But obscure sects like the Mennonites, comprising less than 1 per cent. of the population, cause more trouble in educational affairs than their numbers would appear to justify. Through Separate School Acts in each of the dominantly Protestant provinces, Roman Catholics are conceded the privilege of teaching in separate schools the religious formularies and doctrines peculiar to their church.

Another factor which cannot be overlooked in the discussion of Canadian education is the comparative newness of the country. Although Canadian history can be traced back to John Cabot's expeditions of 1497 and 1498, the settlement of the country in the early days was very slow. At the death of Frontenac in 1698, two centuries after Cabot's epoch-making discoveries, the white population was only 13,355. It was not until the influx of the United Empire Loyalists, between 1783 and 1790, that the rate of settlement, even in the east, became accelerated. As for the west, that vast domain remained for two centuries (1670-1870) under the control of the Hudson's Bay Company—a company which was essentially fur-trading and, therefore, lukewarm or even hostile towards any permanent settlement which would automatically decrease the value of its monopoly. With the completion in 1885 of the Canadian Pacific Railway—the first of the three transcontinental railways which Canada possesses—the modern era of Canadian history begins. The prairies called for settlers. When Canadians, Britishers, and Americans failed to supply the demand, immigration agents sought other centres of population, and with the coming of the "foreigner" came also the problem of his education.[1]

From the general trend of the foregoing account it will be deduced that Canada's main educational problem is a rural one, and must for many years continue to be so. More than fifty-five per cent. of Canada's population is classed as rural; a large proportion of the other forty-five per cent. resides in small urban centres almost indistinguishable in character from rural areas. Apart from the ever-present rural problem, Canada, because of her newness, is confronted with many others that do not concern countries of older foundation. The rapid influx of population, especially to the prairie provinces, has created an unprecedented demand for schools. Saskatchewan, for example, to keep pace with the demand, is compelled to organise a new school district every day of the year. But that is not the whole of the difficulty. Not only must schools be built, teachers supplied, and the administrative machinery set in motion, but only too frequently the bi-lingual question must be faced as well. Distances are great, roads and other means of communication bad or non-existent, so that the task of inspection and supervision can only be efficiently performed by persons fired with a missionary zeal for education and inured to every discomfort of pioneer travel.

For widely scattered populations a highly centralised administration for education has everywhere proved to be the most effective. And hence we find highly centralised administrations in Canada. That for Ontario, for example, is more highly centralised than any other in America. But as population increases, devolution of authority becomes necessary in order to keep up local interest in education. Although some of the more thickly settled provinces of Canada have probably reached the stage when decentralisation would be beneficial, no signs of such action are as yet apparent.

Valuable contributions to Canadian education have been made by many lands and peoples. The Scotch tradition has largely influenced her institutions of higher learning; in more recent years England, through the Rhodes Scholarships at Oxford, tends to play a greater part. But no country has taken such a prominent place in moulding educational opinion and practice as the United States of America. For over a century the United Empire Loyalist tradition has been in effective operation. The close proximity of the two countries, the ease of intercommunication, the similarity of economic problems, have all contributed to the patterning of Canadian education after that of the United States. Canadian students in their thousands have pursued postgraduate courses in American universities. The Canadian "public school" has many of the features of the American "common school." The sovereignty of the provinces in educational affairs, the eight years' course of elementary schooling, the system of authorised texts, the four-year high school, the system of teacher training, the system of certification of pupils for entrance into high schools, the uniform courses of study within each province, etc., if not actually borrowed from the United States, bear more likeness to the systems there found than they do to systems of Great Britain or continental Europe. The peoples of the prairie provinces, Manitoba, Saskatchewan and Alberta, are turning more and more for inspiration and guidance to the democracy across the border, partly for geographical and economic reasons, and partly in the belief that Ontario, once their only guide, is not now quite so progressive as formerly.

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[1] In 1911, 11.02 per cent. of Canada's population five years of age and over could neither read nor write. This illiteracy is largely due to juveniles, Indians, and non-English-speaking immigrants.

The outline and discussion which follow are given in the hope that not only may they prove useful to the foreign student of Canadian education, but also be a contribution to the problem of educational reconstruction after the war.

II. CENTRAL AND LOCAL CONTROL

In the written part of Canada's constitution, that which is embodied in the British North America Act, 1867, sovereign powers over education are granted to the several provincial legislatures. According to section 93 of the Act, "in and for each province the legislature may exclusively make laws in relation to education," providing the rights and privileges with respect to denominational schools, which any class of persons has by law in the province at the union, are properly safeguarded.

These powers conferred on the provinces in 1867 have since been jealously guarded. When in 1910, for example, the Dominion Government wished to institute an inquiry into technical education and industrial training in Canada and elsewhere, it did not feel itself justified in proceeding with the constitution of a Royal Commission until each of the provinces had expressed approval of the undertaking.

At the present time there are very few strictly educational matters in which the Dominion Government is directly concerned. Of these few the most important are the education of the Indian, who is the ward of the government, some aspects of agricultural instruction specially provided for in the B.N.A. Act, education in the Yukon territory, the teaching of transportation at McGill University (this on account of certain government-owned railways), and military and naval education in all its branches. In agricultural education and the education of the Indian, the Dominion Government for the most part works through the existing provincial organisations for education. The Royal Military College at Kingston, Ontario, and the Royal Naval College at Halifax, Nova Scotia, are, however, controlled directly from Ottawa. It seems as if the war would create new educational problems of a distinctly federal nature. Such are those concerned with the re-education of wounded soldiers and the technical and industrial training of returned soldiers who find difficulty in adapting themselves to the changed economic organisation resultant upon the war. Further, in any comprehensive educational scheme which aims at the Canadianisation of the immigrant, the Federal Government may, of necessity, have to play the leading rôle.

Indirectly, the Dominion Government through its numerous publications influences education in a very positive way. The bulletins and reports of the Department of Agriculture; the various branches of the Department of the Interior (including Immigration, Topographical Surveys, Astronomical Observatory, Dominion Parks, Forestry, Irrigation, Dominion Water Power, Railway Lands, British Columbia Lands, Mining Lands and Yukon, and Chief Geographer); the Departments of Finance; Insurance; Militia and Defence; Trade and Commerce; Labour; Secretary of State; Naval Service; Railways and Canals; Marine; Indian Affairs; King's Printer and Controller of Stationery; Inland Revenue; Mines; Commission of Conservation; Civil Service Commission; and those of the various other departments, are freely disseminated throughout Canada, thereby helping to train that sense of citizenship without which no nation can prosper.

But in spite of the foregoing manifold federal activities, education in Canada remains primarily a provincial matter. Theoretically speaking, there is no such thing as a Canadian system of education: there are nine provincial systems. Such, however, is the unanimity of spirit and ideals possessing the whole, that in spite of local differences in detail, somewhat marked in the case of Quebec, one is justified in speaking or writing of a Canadian system of education.

Every country with an educational organisation worthy of the name exhibits both central and local units of control, and Canada is no exception to the rule. The local and central authorities as they exist in Canada will now be described.

Central Authorities.—The central authority for education at the capitals of the several provinces of Canada is variously styled the *Board of Education*, the *Council of Public Instruction*, and the *Department of Education*. The department (board or council) as a whole concerns itself only with the larger questions of policy; the detailed administration is left to the *Minister of Education* and his subordinates. The minister is the executive head of the department. He holds a portfolio in the cabinet of the party in power for the time being, and is responsible through the legislature to the people for the efficient administration of his department. He is usually assisted by a *Deputy Minister* and a *Superintendent of Education*. The former, as his title implies, is an executive official; the latter is rather more. Not only has he the supervision and direction of the schools under his personal control, subject, of course, to the approval of the minister, but he also acts as the expert adviser to the lay minister. In Ontario the law requires him to " make such recommendations to the minister as he may deem expedient with respect to any matters arising out of such supervision and direction." The powers of a superintendent are, therefore, potentially very great. Assisting the above officials there is the usual departmental staff of the central office, and a number of inspectors in the field.

The central organisation may also include an *Advisory Council* or *Advisory Board*, constituted on the lines of the *Consultative Committee* of the English Board of Education or the *Comité Consultatif* of France. Each of the three prairie provinces and Nova Scotia have advisory councils. Ontario had one, but abolished it in 1915, because the central executive officials believed that they could obtain more exact information and sounder advice from their own inspectors. This would appear to be a misguided attitude, since the inspectors and teachers are bound to act as individuals, not as a body. A properly constituted advisory council could be utilised to give that impersonal, scientific, non-bureaucratic guidance so necessary for education in a democratic community.

Such in brief is the general central organisation found in Canada. That there are many variations from the norm can be seen from Table III.

TABLE III

Showing the various Forms of Provincial Central Units of Organisation and Control

Units of Organisation.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
1. (a) Board of Education	Yes		Yes						
(b) Council of Public Instruction		Yes		Yes					Yes
(c) Department of Education					Yes	Yes	Yes	Yes	
2. Minister of Education	No	No	No	No	Yes	Yes	Yes	Yes	No
3. Deputy Minister of Education	No	No	No	No	Yes	Yes	Yes	Yes	No
4. Superintendent of Education	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
5. Advisory Council or Board	No	Yes	No	No	No	Yes	Yes(?)	Yes	No

The department of education (board or council) consists usually of the executive heads of each of the governmental departments (the cabinet), to whom may be added the superintendent (P.E.I., N.S., and N.B.), and a number of co-opted associate members (P.E.I. and N.B.). The superintendent presides over the council of public instruction in Quebec; in other provinces where he has a seat in the department he acts as its secretary. In Ontario the superintendent has no seat on the board constituting the department of education.

Where there is no minister of education, the provincial secretary virtually fills the office. This is true of Nova Scotia, British Columbia, and Quebec.

The chief inspector of schools in Alberta undertakes many of the duties delegated to superintendents in other provinces.

The advisory board of education in Nova Scotia consists of seven members, five appointed by the lieutenant-governor in council, and two elected every two years by the teachers at the convention of the provincial educational association. Its duties consist in advising the council of public instruction and the superintendent of education respecting text-books, the courses of study, the qualifications and examination of teachers, the classification, organisation and discipline of the normal college, county academies and the public schools, and other educational matters referred to it by the superintendent or the council. That of Manitoba is composed of twelve members, eight of whom are appointed by the department of education (of these eight, two must be trustees of rural schools), two are elected by the public school teachers of the province, one by the high-school teachers, and one by the inspectors. It has wide powers, since it authorises text-books, prescribes curricula, grants standing, and controls examinations. The educational councils of Saskatchewan and Alberta have each five members, two of whom must be Roman Catholics. They are advisory only, and although each minister may at his discretion refer to them for report and advice on such matters as regulations respecting the inspection of schools, the examination, training, licensing and grading of teachers, courses of study, teachers' institutes, and text and reference books, he is not obliged to carry out their suggestions.

The central organisation of Quebec differs fundamentally from that of the other provinces, since it is complicated by problems of language and religion. It can be traced back to the French regime (1608-1759). The council of public instruction, as the central organisation is called, consists of an equal number of Roman Catholic laymen and Protestants (fifteen), appointed by the Crown, the superintendent of education, similarly appointed, and Roman Catholic bishops or vicars apostolic, whose dioceses or parts of whose dioceses are in the province of Quebec. Educational matters which affect both Roman Catholics and Protestants are dealt with by the council as a whole, the superintendent acting as chairman. Where the meaning of the law is not sufficiently clear, the superintendent receives direction from the provincial secretary, who acts in this capacity as a minister of education. School questions of exclusive concern to Roman Catholics are dealt with by a Roman Catholic sub-committee, with the French Roman Catholic secretary, appointed by the Crown, acting as its secretary. In similar fashion, the Protestant members of the council act as a sub-committee to deal with Protestant education, the English Protestant secretary, also an appointee of the Crown, acting as its secretary. The bishops act as associate members on the Roman Catholic sub-committee; while the Protestant sub-committee has added to its members seven associates, six elected by the sub-committee itself, and one by the provincial association of Protestant teachers. To prevent friction, the school inspectors of the province are appointed by the lieutenant-governor in council (the Crown), and the duties of all officers, committees and council itself are carefully prescribed by the school laws. In the superintendent and the two secretaries, as appointed executive officers, reside the practical control and direction of education within the province.

On the whole, Canada is well served by its various provincial central organisations. Through over-centralisation, they probably exaggerate the importance of control as contrasted with direction and stimulation of effort. They seem to forget sometimes that they are "education departments," not merely "departments for the control of education." Some doubt has been cast on the necessity for superintendents as well as deputy ministers of education. The post of superintendent was created with the view of removing education from the sphere of politics, and transferring it to the direction of the expert, and in this regard success has been attained.

Local Control.—In Canada to-day, as was the case in England prior to the passing of the Education Act of 1902, education is controlled locally through boards specially created for the purpose. Other divisions for local civil government enter the field of education mainly through the wide portals of finance. Since, however, there is this overlapping, it will be necessary to mention the various kinds of municipalities as well as the boards of education.

Five main types of municipal institutions are found in Canada —the city, town, village, township, and county. Of these the township is the original division. The county is simply a collection of townships (or parishes in Quebec and New Brunswick) grouped together for convenience in dealing with some of the bigger affairs of local government. The villages, towns and cities are successively created as the population in given local areas increases. Any variations from this norm are due to the fact that every province through its legislature has full control of municipal institutions.

The county is the largest division for municipal government. Its irregular boundaries, owing to its method of formation, have been adjusted in recent years to give it a more regular shape. British Columbia has no counties. The county council in Ontario is not directly elected by the municipal voters, but is composed of reeves and deputy-reeves of towns (other than separated towns), villages and townships. Its presiding officer and chief executive is called a warden. The township of Ontario, the large rural area within a county, is governed by a council of five, at whose head is a reeve. In Quebec and New Brunswick the parish, an ecclesiastical division, largely takes the place of the township of other provinces. Villages, towns and cities may be incorporated when a certain population is reached. In Ontario a city must have 15,000 inhabitants, a town 2000, and a village 750. A town of over 5000 may "separate" from the county in which it is situated. Further west, the numbers demanded tend to become smaller. Thus in Manitoba, a city need have only 10,000 inhabitants, a town 1500, and a village 500. In Saskatchewan the city has 5000, the town 500, and the village 100 people. In Alberta the cities are created by special charter; the town has 700 inhabitants, and the village twenty-five inhabited dwelling-houses.

In Ontario the city council is composed of a mayor, members of the board of control,[1] and three representatives from each ward, called aldermen. Towns have a similar form of government. The town council has a mayor and three councillors from each ward (two if there are more than four wards in the town). The village, like the townships, is governed by a reeve and four councillors, elected at large.

Education, as we have seen, is managed locally by boards of trustees. There are boards of trustees for cities, towns, villages, and for school sections or districts. In Ontario, the rural area is known as a school section. It is formed by the subdivision of a township by the township council. Each section is provided with a school, which is managed by a board of three trustees. Elsewhere in Canada the common name for an area containing one (or more) school is the school district.

In Prince Edward Island the school district may be the whole of the city or town; in rural communities it is an area of about four square miles. The local organisation for education in Nova Scotia is somewhat different. District boards of commissioners, each consisting of not less than seven commissioners appointed by the Council of Education, exercise a limited jurisdiction over thirty-three areas, each about half a county. These boards usually divide their districts into school sections, each of which elects its board of trustees to look after the maintenance of the school. The rural school district of New Brunswick must contain an area of at least three and one-half square miles, or must have at least fifty children of school age. As in the majority of Canadian school districts, the school is managed by three trustees, each holding office for three years. The city or town of New Brunswick also forms a school district. The basis of school organisation in Quebec is the school municipality, created solely for purposes of education. In addition to the city municipalities of Quebec there are those of the town, village, and the so-called county municipalities, the latter including parish and township municipalities. Excepting the city municipalities, all other school municipalities are created by the Crown on the recommendation of the superintendent of public instruction. Each school municipality elects a board of five commissioners, which has the power of subdividing the municipality into a number of school districts. In Ontario provision is made for boards of trustees for "separate schools," the latter being for Roman Catholics. Five heads of Roman Catholic families may unite and establish a separate school, which is then managed by a board of trustees much in the same way as a Protestant public school. Similarly, five heads of families in any unorganised township of Ontario may, with the approval of the department, organise a local school and elect a board of trustees to manage it. In the cities and towns each ward is represented by two trustees who hold office for two years, one-half retiring each year. The villages, which are not divided into wards, elect six trustees, three each year, to form the board of management for schools. The unit of organisation in Manitoba, Saskatchewan and Alberta is the school district, ranging in size from sixteen to twenty-five square miles. Ten school children in Manitoba and Saskatchewan, and eight in Alberta, between five and sixteen years of age, must reside in a district before it can be organised. Where districts of the prairie provinces, entitled by population to have a school, are delinquent in the matter of setting up a school district, an official trustee, having all the powers of a school board, may proceed with the organisation and administration of a school, charging the local cost to the ratepayers resident in the district. This procedure has been found necessary most frequently in the districts settled by foreigners. British Columbia organises its education through municipality school districts, rural school districts, and assisted schools. The differences among them are due to the factor of population. There are five trustees for the rural municipality school district, and three each for the other rural school districts.

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[1] A board of control is compulsory on all cities of 100,000 and over; optional on those between 45,000 and 100,000.

The board of trustees for elementary schools, which in urban centres becomes absorbed in a board empowered to look after all grades of education, appoints the teacher, who must have the necessary certificates of qualification, pays his salary, and attends to the building and repairing of the school house and the care of the school equipment. The board must submit to the municipal council, before the opening of the new school year, estimates of expenses for the current year; at the close of the year the account must be audited. In a city or separated town of Ontario the board may appoint an inspector or inspectors subject to the approval of the department; all other public school inspectors are appointed by county councils.

The powers enumerated above, especially those for rural sections, are very limited. The fault really lies in the smallness of the local area. The best men in the area will not concern themselves with what, to them at least, appear such trifling affairs. Canada urgently needs a larger local area for rural education. If the county or some such area were given jurisdiction over all its educational concerns, improvements would undoubtedly be made. The problem of school accommodation, both elementary and secondary, could be regarded in wider perspective. School nurses and doctors could be appointed for rural schools, an impossibility at present, and generally education could be co-ordinated and decentralised.

The foregoing remarks apply in general only to public schools. High schools are usually controlled by other authorities. Thus Canada not only has separate provincial systems, but within many of the provinces the elementary and secondary schools are divided into water-tight compartments. In Ontario, for example, a high school, at the initiative of the county council, and with the approval of the Crown, may be established in a municipality which has at least 1000 inhabitants. Such a municipality then becomes a high-school district. In cities and in towns separated from the county the municipality has the power to establish high schools.

In Ontario, as we have noticed, for urban areas there is a board of education which takes over the powers and duties of the public school, the separate school, and the high-school boards. Elsewhere the high-school board of trustees consists of six members, three appointed by the county council, three by the municipal council, and the members hold office for three years. In cities and separated towns the county usually appoints none of the members. If the municipality has a separate school board, one Roman Catholic, not being a separate school trustee, may be appointed an additional trustee of the high-school board; in the same way the public-school board exercises a similar right. If the high-school board provides an excellent school building, and appoints at least four teachers with specialists' certificates, the high school then becomes a collegiate institute. The duties and powers of high-school trustees are similar to those of public-school trustees.

The secondary schools of Nova Scotia are called county academies. In addition, secondary education is provided by the four high-school grades of the public schools. New Brunswick calls her secondary schools grammar and superior schools. Manitoba has, in addition to high and collegiate schools, a secondary school known as an intermediate secondary school. The organisation of secondary education in Saskatchewan closely approximates to that of Ontario. Alberta and British Columbia both adhere to the excellent plan of having all schools in a school district, whether elementary or secondary, administered under the same local school board. In Alberta there are technically no high schools, although schools giving instruction exclusively in grades IX.-XII. are commonly spoken of as high schools. British Columbia attaches a superior school to the existing elementary school wherever there are ten pupils qualified and available for high-school studies; wherever twenty such pupils are available a high school may be established.

The chief defects of Canadian local units of educational control appear to be: (1) the smallness of the population within the local area, necessitating the granting of but meagre powers to the local board (even these are not always exercised); (2) the separation, in rural areas, of the machinery of control of the secondary school from that of the elementary school, leading to many maladjustments, much inco-ordination of effort, and frequently to exhibitions of petty jealousies between the two boards. The removal of these primary defects would lead to rapid improvement of Canadian education.

III. ELEMENTARY EDUCATION

The chief asset of Canadian elementary education is its democratic character. For in a very real sense the elementary school is the school of the people. None may enter a high school who have failed to graduate from the full course of the elementary school. Private schools as yet play an insignificant part in the education of young Canadians. Elementary education, except in Quebec, is free for all, and children from all social classes receive a common education within the walls of the elementary schools. This democratic organisation is the bright feature of Canadian education. Unfortunately, there is a less commendable aspect to record. We have seen that, administratively, secondary education in rural areas is sharply differentiated from elementary, being controlled by its own boards of trustees, who frequently have little knowledge of, or sympathy with, the work of the elementary schools within their jurisdictions. And elementary education in turn segregates into two water-tight, mutually exclusive systems—the public and the separate school systems.

West of Quebec, separate schools are, with few exceptions, Roman Catholic schools. In Quebec, contrary to general opinion, separate schools may be either Protestant or Catholic. The school law of that province provides in the first instance for a board of commissioners in every school municipality, for Protestants only or for Catholics only, according to the religious affiliations of the majority of the inhabitants, but any number of the proprietors, tenants, or ratepayers may dissent and form a separate board of trustees. The separate school in Quebec, therefore, depends for its existence upon a dissenting Protestant or Catholic minority within a given school territory. Separate schools everywhere receive towards their support the taxes of the dissentient minority, and are allowed to teach the religious formularies of their respective denominations. Otherwise, the courses of study, examination requirements, qualifications of teachers, etc., are the same for both public and separate schools; consequently in the succeeding account of elementary education the public school system will be the one referred to unless expressly stated to the contrary.

The elementary school of Canada is known as the "public school," except in the maritime provinces, where the designation "common school" is also found. Some confusion arises from the fact that high schools are frequently regarded, and rightly so, as part of the public system of schools, and also from the use of the phrase "public school" to denote a class-room and teacher, whether part of a larger unit or not.

Organisation of Elementary Schools.—In general the Canadian organisation of elementary schools closely approximates to that of the United States. Common to both we find eight elementary grades, which in some cases are extended below by the kindergarten. But there are some differences. In Nova Scotia the eight elementary grades are known as the common school grades. The influence of the authorised Reader is shown in the terminology adopted by Ontario. The terms first-book, second-book classes, etc., are frequently used. Thus we have:—

1st grade known as	Junior First Form, or First Reader, Part I., or Primer	
2nd ,, ,,	Senior First Form, or First Reader, Part II., or First Book	
3rd ,, ,,	Junior Second Form	or Second Book
4th ,, ,,	Senior Second Form	
5th ,, ,,	Junior Third Form	or Third Book
6th ,, ,,	Senior Third Form	
7th ,, ,,	Junior Fourth Form	or Fourth Book
8th ,, ,,	Senior Fourth Form	
9th ,, ,,	Fifth Form, or Fifth Book	

The Ontario fifth-book class is a continuation class for pupils who ordinarily do not wish to pass into the high school, but want to get some commercial and secondary training before they leave school. Ontario is also organising a kindergarten-primary grade to make the transition from the kindergarten to the graded school less abrupt. Manitoba has nominally eight grades, but the eighth with the three high-school grades form the organisation for secondary schools. Saskatchewan frequently attaches the three high-school grades (called junior, middle, and senior) to an elementary school, where a separate high school has not been established. Quebec's Protestant organisation includes four elementary school grades, three intermediate grades, and three secondary school grades. In rural parts the elementary schools teach the work of the four elementary and one or two of the intermediate grades. Similarly the intermediate grades may carry on the work of the first and even the second high-school grade. The intermediate and secondary schools are not housed in separate school buildings; each is organised from the lowest elementary grade, and does the work of the lower school in separate classes, but under the same roof. The organisation of Catholic schools in Quebec calls for an eight-year system only.

Rural schools are frequently ungraded. In spite of the almost insuperable task of providing "seat-work" for children not receiving direct teaching from the teacher, rural school children graduate from the elementary school at an earlier age than town children. The reason for this lies in the fact that in town schools it has become the recognised procedure to keep all children a full year in each grade. There is little elasticity shown in the system of grading and promotion in urban areas.

Attendance and its Enforcement.—Pupils are compelled by law to attend school in every province of the Dominion except Quebec. At present there is little hope of securing a compulsory attendance law in that province, since the leading authorities of the Roman Catholic Church declare themselves opposed to compulsory attendance of children at school, on the ground that it infringes the rights and liberties both of the Church and the parents. While conditions regarding education in Quebec are almost mediæval in character, the other provinces, in so far as enforcing school attendance is concerned, have not much to be proud of. Statistics of attendance are notoriously unreliable, but they show that some 20,000 Canadian children of school age are receiving no formal education at all, while another 20,000 at least attend schools for twenty days or less each year. Manitoba did not place a compulsory attendance law upon her statute books till 1916. Even if every allowance be made for those communities which live on the fringes of civilisation, and for other difficulties which confront a country with a large alien population, the law respecting attendance cannot be regarded as satisfactory. Even when the attendance laws are adequate, the machinery for enforcing them is frequently non-existent or rusty, as may be judged from Table IV.

The table shows that of the pupils enrolled only two out of three are in school on any given day. The showing would be even worse if all children of school age, whether enrolled in school or not, were taken into consideration. In extenuation of these discouraging figures, the severe nature of the Canadian winter, the long distances to school in rural areas, the dominantly rural character of the population, and the fact that pupils changing schools may often be registered in two places, thus decreasing the percentage attendance, may be cited.

The full school year of Canada varies between 200 and 210 teaching days. There are the usual vacations at Christmas and Easter, the long one of two months or somewhat less in summer, and the various national holidays. Unfortunately, however, continuous attendance for the full year is not required in every province, as the following notes on attendance laws will show.

In Prince Edward Island all children between the ages of eight and thirteen must attend school at least twelve weeks each year, of which six weeks must be consecutive. Attendance is not

TABLE IV

Number of Schools, Teachers, and Pupils in Canada by Provinces, 1915

Province.	Schools.	Teachers.			Pupils Enrolled.			Average attendance.[1]	
		Male.	Female.	Total.	Boys.	Girls.	Total.	No.	Per cent.
Prince Edward Island	477	152	434	586	9,714	8,688	18,402	11,694	63.54
Nova Scotia	2,795	256	2,689	2,945	53,649	54,119	107,768	70,361	65.3
New Brunswick	1,964	184	1,922	2,106	33,437	23,068	56,505	44,683	67.18
Quebec	5,880	232	7,523	7,755	119,244	125,363	244,607	185,102	75.67
Ontario	6,600	1,685	10,165	11,850	258,000	247,074	505,074	336,860	66.69
Manitoba	2,727	598	2,378	2,976	—	—	100,963	68,250	67.6
Saskatchewan (1914)	3,055	1,552	2,949	4,501	58,036	53,023	111,059	63,328	57.02
Alberta	2,138	1,418	2,800	4,218	50,140	47,146	97,286	61,112	62.81
British Columbia	730	412	1,403	1,815	31,215	29,137	60,352	49,162	81.46
Canada (1914).	26,000	6,290	31,599	37,889	601,141	585,953	1,281,048	852,333	66.53

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[1] If a more scientific method of recording average attendance were employed, these figures would present a different aspect. It is practically certain that attendance in Ontario is not worse than that in British Columbia.

strictly enforced, and the people of that delectable island have only recently abolished the obscurantist law which gave scholars three weeks' vacation in seed-time and in harvest, so that their parents could utilise their labour in the fields. Nova Scotia and New Brunswick have compulsory attendance laws, the acceptance or rejection of which is a matter of local option. Children between seven and twelve years of age are required to attend 120 days each year, failing which the parent or guardian may be fined two dollars if the child has not been to school at all, or a proportionate amount if he has attended less than 120 days. Quebec has no compulsory attendance law, but it is generally understood that the school age runs from seven to fourteen, with provision for children entering as early as five. Since a school census is taken each year, and by the regulations the teachers are directed to inquire into the cause of absence of any child, attendance is not so bad as it otherwise might be. In Ontario " every child between eight and fourteen years of age shall attend school for the full term during which the school of the section or municipality in which he resides is open each year," unless he is under efficient instruction at home or elsewhere, or unable to attend school by reason of sickness, or resides at a distance greater than two miles, if under ten, or three miles if over that age, from the nearest school, etc. The maximum fine for non-compliance with the law is five dollars. The school attendance law of Alberta is very similar to that of Ontario. Children between seven and fourteen must attend school regularly, failing which the parents become liable to a maximum fine of ten dollars. In Manitoba every child over seven and under fourteen years of age is required to attend school for the full term during which it is open, unless exempted under the usual clauses. A child above ten may also be excused from school for six weeks each term if his services are needed in husbandry or in urgent and necessary household duties. The teacher or principal of every school which has no attendance officer must report to the department each month the names of scholars absent without lawful excuse. In Saskatchewan the age limits of compulsory attendance are seven and thirteen, and the schools must be open 190 days in each year. The law of British Columbia requires every child from the age of seven to fourteen, inclusive, to attend school or be otherwise educated for six months in each year; in city districts children may be required to attend the full school year.

Provision is made by many of the provinces for the appointment of truant officers. In Ontario, for example, the police commissioners and, where there are no police commissioners, the municipal council of every city, town, and village, must appoint one or more truant officers for the enforcement of the attendance act. The truant officer is vested with the powers of a peace officer, in other words he is a policeman, although he does not wear the uniform. In Alberta the truant officer holds a position similar to that found in Ontario. Where the truant officer is compelled to work in conjunction with the local school inspectors, the best results are obtained, but it must be confessed that attendance, especially in rural districts, is still very unsatisfactory.

Every province in Canada makes some attempt at a school census; only Ontario and Quebec, however, make a full school census. The Ontario census enumerates all children between the ages of five and sixteen years, eight and fourteen years, and five and twenty-one years.

It will be gathered that reforms in matters of school attendance are urgently needed. In the first place, Quebec should immediately enact a compulsory attendance law. No province can nowadays afford to be lax in such matters. Competition between states is largely industrial and economic. That state survives and progresses which has a well-educated citizenship. Attendance at school may, therefore, be legitimately enforced without infringing on the natural rights and liberties of its citizens. Secondly, every province should institute a *continuous* school census, that is, one in which every child is registered as soon as he attains school age, and track of him is kept afterwards. One taken annually is better than none at all, but the continuous census is the only really effective one. Thirdly, the enforcement of attendance should be removed absolutely from the hands of the police. The police commissioners should have nothing to do with the appointment of truant officers, and ex-policemen should, as a rule, not be employed. There is a stigma attached to the police and police court with which children of school age should not be branded. If the name were changed from truant officer to school attendance officer and the appointments made by boards of trustees, much good would be done. Further, the provincial education departments should encourage attendance by making increased grants for regularity. Lastly, a much greater number of attendance officers should be appointed. It is ludicrous to suppose that the three truant officers in Toronto, for example, can possibly look after the 80,000 children of school age in that city. Apart from the cripples, both mental and physical, there must be a serious leakage, not only in attendance of children already enrolled, but also of those who never get their names placed on a school register.

Courses of Study.—Canadian courses of study are distinguished by the following characteristics: (1) The large number of obligatory subjects they include; (2) their uniformity throughout a province; (3) the relatively large emphasis placed upon tool subjects (the three R's) as opposed to content subjects; (4) the frank acceptance of the disciplinary conception of studies; and (5) the thoroughness with which the different branches are taught.

In every province reading, spelling, grammar, composition, writing, arithmetic, geography, Canadian and British history, hygiene, including temperance or physiology, drawing, and nature study or elementary science are taught. But this is simply the minimum list common to all provinces. Ontario, in addition to the above, includes literature, physical culture, manners and morals, music, book-keeping, manual training, household science, and agriculture and horticulture in its course of study for elementary schools. Reading, literature, composition, spelling, grammar, history, geography, writing, arithmetic, manners and morals are obligatory on all schools, and must be taken up without the omission of any of the prescribed topics or sub-topics. Hygiene, physical culture, art, nature study and vocal music, with few modifications, are obligatory, while, subject to certain conditions, book-keeping, manual training, household science, agriculture and horticulture are optional. The provinces of Alberta, Nova Scotia and Quebec teach civics as a separate subject, while elementary geometry in Alberta and elementary algebra under the Protestant committee in Quebec are taught during the last year of the public school course. Quebec Catholics have also an elaborate programme of moral and religious instruction, and, in addition, are required to teach both French and English to elementary-school pupils. The dual language problem also confronts the Protestant teachers of that province. Catholic Quebec is unique in one respect; Latin is taught to all elementary pupils after the third year of schooling.

The course of study throughout any province is remarkably uniform. The department of education takes pride in making it so. The syllabus is seldom suggestive; it is almost invariably prescriptive and frequently restrictive, that is, subjects outside the official syllabus may not be taught. Thus the Jew in the Ghetto of the city is taught the same subjects, in the same way, and from the same text-books as the Gentile on the farm. A few enlightened inspectors permit teachers to fit the course of study to local conditions, but this is the exception and against the rule; no latitude in regard to the course of study is the order of the day. It is difficult to see why carpenters and mechanics should be trained in exactly the same way as preachers and lawyers. Mathematics is an indispensable branch of learning for the mechanic and engineer; it is of little value to the lawyer or preacher.

The arguments Canadians use in supporting their policy of uniformity run somewhat as follows: A democracy such as the Canadian demands that all children, whatever their social status, shall be given equal opportunities, so far as it is possible for education to give them. Therefore, the boy from the slum must be given the same education as the boy from the castle; the boy in the rural district must be given as good a chance as the boy in the city. Only by providing the same course of study for all can one be sure of granting this equality of opportunity. The argument is a noble one, and appears sound on first reading it. But unfortunately the fact that a child can become educated, yea, cultured as well, by the deep study of a few subjects, and these not necessarily the same for every child, has been overlooked entirely. The second argument states that the intellectual heritage of the race is becoming so vast that the elementary school can pass on but a small part of it. This small section of knowledge must be carefully chosen and taught to everybody. Hence the curriculum for all must be uniform. This argument seems plausible, and there is undoubtedly a great deal of truth in it. Its weakness lies in the fact that it does not recognise how little of certain common branches we really need to know in order to make a success of life. To illustrate: in arithmetic it is not necessary for everybody to learn square and cube root; the majority will live quite happily if they can add, subtract, multiply and divide; in a word, compute quickly and accurately. In geography we need know the location of fewer than 100 of the principal cities of the world, and only two of the capes, Good Hope and Horn; the teaching of the use of an atlas and a gazetteer will supply the other needed information. The real reasons for uniformity of courses of study in Canada are, first, that each type of education dominates the one next below it; consequently the elementary school must teach subjects demanded by the high school, the high school in turn the subjects demanded by the university. Since the university is an institution preparing students for the various professions, it follows that education, wherever found, whether in Canada or elsewhere, has a distinctly professional bias. A second reason for uniformity of prescription lies in ease of administration. Diverse forms of education and courses of study, as every administrator knows, are a fearful bugbear; one exception from the general rule causes more trouble than a thousand normal cases. Lastly, variety of types is difficult to obtain in a sparsely populated, relatively poor, and as yet simple social and industrial organisation. But the era of simple industrial organisation is rapidly passing.

Canada is just entering upon an era when different types of school are being evolved. She already has her schools of commerce, household science, physical training, agriculture, and technology. This differentiation is a step in the right direction, but more is needed. Differentiation within individual schools, to suit the varying capacities of pupils, is also needed. Why should all pupils be trained to enter the high school, when by actual count only four out of every hundred arrive there? Fortunately the more progressive provinces are beginning to realise the subtle dangers of over-uniformity, and to welcome variety in curricula. Saskatchewan and Alberta are especially to the fore in this regard.

The emphasis that Canada placed upon the three R's in the past was entirely justified. Education is more than a matter of book-learning. The pioneer's child learnt a large number of useful occupations in the home, and thereby acquired a very practical education. All that the school needed to do was to supplement this practical education by reading, writing and arithmetic of the most bookish or formal kind. But although pioneering still remains, it is for many Canadian children a thing of the past. The home is no longer an institution wherein the spinning and weaving of cloth and its manufacture into clothing are carried on; the factory and the department store have destroyed for ever many of the occupations with which the home was formerly concerned. Children can no longer educate the brain through their hands, or at least not so surely as aforetime, and the school, knowing the educational value of handwork of every description, begins to undertake such work. In progressive communities the time devoted to cookery, dressmaking, laundry-work, woodwork, basketry, gardening, printing and bookbinding, etc., indicates the importance that educators now place upon these occupations. As yet Canada has but imperfectly realised the changed conditions of the country. She still devotes about one-half of the school time to the teaching of tool subjects —subjects of little educational value in themselves, but educative only in their applications. It is not reading that educates, but *what* one reads. These remarks will be reinforced by the perusal of Table V., which gives the average subdivision of the school day in the schools of Nova Scotia.

TABLE V

Average Time Division of each Day for Nova Scotia Elementary Schools

Subject.	Average minutes per day.
1. Reading and elocution	65
2. Spelling and dictation	33
3. English, grammar, composition, etc.	28
4. Writing	19
5. Drawing	14
6. Geography	21
7. History	17
8. Moral and patriotic duties	5
9. Arithmetic	60
10. Book-keeping	7
11. Object lessons on nature	8
12. Hygiene and temperance	9
13. Vocal music	7
14. Callisthenics and military drill	5
Total minutes per day	298

Canada is the only country in the world where formal reading, writing, spelling and arithmetic are carried into the high school and taught to pupils of fifteen and sixteen years of age. Such a state of affairs cannot continue. The pressure upon school-time through the introduction of domestic science, manual training, applied sciences and arts, agriculture, horticulture and gardening will force a reorganisation. The war also will have its effect; more efficiently trained workers will be urgently demanded.

One of the reasons for the ultra-conservative nature of Canadian public-school curricula lies in the widely-diffused belief of the truth of the formal discipline theory of studies. Elsewhere the theory is discredited, but Canada clings to it with mid-Victorian tenacity. Ontario boldly proclaims that the purpose of arithmetic is " to train the pupil to become ready, accurate, and prompt in the use of numbers in calculation, and to reason correctly"; in another place arithmetic is said to train the pupils "to reason correctly, as the result of the logical processes required in arithmetical calculation." History is said to enable a pupil "to appreciate the logical sequence of events." If the leaders in the community still believe that arithmetic can be used "effectively as a means of logical training," no surprise need be expressed at the conservatism of the courses of study they produce.

In spite of the adverse criticisms levelled at the courses of study in the preceding paragraphs, it must be frankly confessed that the various branches of public school work are, on the whole, taught remarkably well. Canadians everywhere have the reputation of knowing their basic studies thoroughly. This desirable state of affairs is partly due to the disciplinary views of education, partly to the sterling qualities of the teachers themselves, and partly to the stimulus obtained from state entrance examinations for high schools. If the same energy were devoted to content rather than to technique, Canada would be an extremely well-educated nation.

School Buildings and Equipment.—Every type of school building can be found in Canada, from the worst to the best. In many places the old log building with its primitive equipment still survives; in others the most up-to-date buildings with the best possible equipment have been erected.

The possibility for the provision of the school building and its equipment rests upon the local school community. For this purpose trustees or municipal councils are empowered to issue bonds on the security of the community taxes. If large capital expenditures are involved, it is usual first to secure authorisation by a poll of the ratepayers. Nowhere in Canada does a provincial education department provide local communities with money for capital expenditure; Ontario, however, assists indirectly by giving part of the grants (*infra*) according to the excellence of the school accommodation and equipment. School libraries are everywhere encouraged by grants. A noticeable improvement is taking place in the matter of school buildings throughout the Dominion owing to the vigilance of the central departments working through their inspectors.

Ontario stands out prominently in regard to the efforts she makes for the improvement of sites, buildings and equipment. Not only has the department passed stringent regulations regarding the general heating, lighting and ventilation of buildings, but it has issued a number of standard plans for one, two and three teacher buildings, as well as a bulletin which shows specifically how school grounds may be improved. In the bulletin dealing with standard school buildings, such topics as construction and site, class rooms, halls, cloak rooms, lighting, heating, ventilation, colour schemes of decoration, etc., are discussed at length. In that on the improvement of school grounds, all the topics germane to the subject are treated in a very practical way. The example of Ontario has led Manitoba and Nova Scotia to do work along similar lines.

Much remains to be done. The school sites in Canada, both urban and rural, are usually much too small. There is no valid reason against a regulation which insists on a minimum site of two acres for a rural school; at present the laws only require from one-quarter of an acre to an acre. The unjacketed stove is also too frequently found in rural schools, while the general temperature of city school buildings (around seventy degrees) is several degrees too high. The encouraging thing, however, is that progress is being everywhere made. No new plans for school buildings are passed by inspectors and the departments unless they comply with modern hygienic requirements.

The equipment of schools is essentially a local matter. The inspector in his capacity as adviser to the trustees can render much valuable service in this regard. Minimum requirements are frequently set out by departments, with suggestions as to additional expenditures on equipment. Ontario, for example, requires that each board of trustees shall provide at least the following equipment: a school flag, a clock for each class room, a Fahrenheit thermometer, a twelve-inch globe, a given list of maps, a numeral frame, a set of mensuration and geometrical models, a blackboard set for each class room (compasses, pointers, etc.), a pair of scales to weigh from half an ounce to four pounds, a set of capacity measures, a set for linear measure, a set for square and cubic measures, a school library containing a number of specified books, and additional equipment if the school be a graded one. As Canada is a new country, with most of her buildings still to be erected and equipped, she is in the admirable position of being able to profit from the experience of others. It is to be hoped that she will remember that educational requirements change very rapidly, and have the wisdom to regulate her building programmes accordingly.

Text-books and Supplies.—The text-book flourishes on the North American continent. Compared with the European text-book, meagre in size and unattractive in "get-up," that of America appears almost regal. Two factors have determined its evolution and growth—the rural school and the incompetent teacher. When not receiving direct instruction from the teacher, the pupil in the rural school requires an abundance of study material, which is best furnished by a number of good text-books. The ill-trained teacher needs a guide, his pupils a *vade mecum*, which again the text-book most conveniently supplies. The state examination is also a factor determining the nature of the text-book.

The text-book is the most important tool the teacher uses; consequently, a large amount of thought and capital has gone to its production. But it has created some of the most ticklish problems for the administrator. Shall text-books be uniform throughout a province for rural as well as for city schools? Shall they be selected by experts or lay boards of trustees? Shall they be free, or privately purchased by the pupils? Shall there be one, or more than one, authorised text in each of the subjects of the course of study? Shall they be written by Canadian teachers? Shall they be provided by a department of education, or by private venture?

So far as Canada is concerned, she has declared in practice for uniformity throughout a province, selection and provision by the central department of education, private purchase by the pupil (rapidly changing in the west), and for one, and only one, text-book of Canadian authorship for each branch of study.

Canadian text-books, when size and "get-up" are taken into consideration, are the cheapest in the world. They are the envy and wonder of educators south of the line. Compare the following prices with those that obtain elsewhere:—

Ontario Public School Arithmetic	$ .10
,, School Geography	.65
,, Public School Grammar	.10
,, ,, ,, History of England and History of Canada, bound together	.50
,, ,, ,, Hygiene	.20
,, ,, ,, Speller	.15
,, Readers:	
Primer	.04
First Book	.06
Second Book	.09
Third Book	.14
Fourth Book	.16
,, High School Reader	.40

Ontario High School English Grammar	$ .45
,, ,, ,, ,, Composition	.18
,, ,, ,, Physical Geography	.60
,, ,, ,, Ancient History.	.75
,, ,, ,, History of England	.65
,, ,, ,, ,, ,, Canada	.19
,, ,, ,, Arithmetic	.40
,, ,, ,, Algebra	.42
,, ,, ,, Geometry	.40
,, ,, ,, Latin Book	.70
,, ,, ,, French Grammar	.60
,, ,, ,, ,, Reader	.11
,, ,, ,, German Grammar	.70
,, ,, ,, ,, Reader	.13
,, ,, ,, Physics	.90
,, ,, ,, Laboratory Manual in Physics	.35
,, ,, ,, Chemistry	.50
,, ,, ,, Laboratory Manual in Chemistry.	.25
,, School Book-keeping, 1st Course	.30
,, ,, ,, 2nd ,,	1.00
,, Writing Course, Book III.	.04

The majority of these books are of several hundred pages, well bound, well illustrated and well printed. Even when the fact is taken into consideration that the province frequently bears all the preliminary costs as far as the production of the plates, the results are still remarkable.

But state-produced text-books have serious drawbacks. They do not usually represent the most progressive ideas in education. Their method of production precludes that. Their makers collect together all the books of private publishers on the same subject, and take from them what they wish to use. The material so arranged in the new composite book is criticised by many teachers and educators, and frequently much valuable material is eliminated simply by reason of its up-to-dateness. The final product is a compromise of many different points of view. The epoch-making books in any subject are always produced by private publishers; there is no case on record of a state text-book adding anything of moment either to the methodology or the knowledge of a subject. This, however, does not represent the whole of the indictment against the state-authorised or state-produced text-book. A state text, that is, a single text in any subject, cannot possibly suit every condition obtaining within a province. Not only are rural needs different from those of the city, the needs of "foreign" districts different from those of "English" districts, but the varying schools and varying pupils have also differing needs, which cannot be met in one all-inclusive fashion.

These difficulties in the way of the authorised texts are accentuated in Canada by the publication of teachers' manuals and by the rigid regulations against the use of unauthorised text-books. Ontario, for example, rules that " if a teacher negligently or wilfully permits an unauthorised book to be used as a text-book by the pupils of his school, the minister, on the report of the inspector, may suspend such teacher," and that " it shall be the duty of every public school inspector to withhold his order for the amount apportioned from the legislative or municipal grant, where the teacher uses or permits to be used as a text-book any book not authorised by the regulations." The text-book regulations of other provinces are not quite so restrictive as those of Ontario, partly because they authorise more freely the texts of private publishers, but on the whole the strictures employed above apply to the whole of Canada. The love of cultured reading is rarer in Canada than it should be; is the state text-book to blame?

Yet it is difficult to reach a fair decision on such a controversial subject as text-books. Dutton and Snedden in their book on *Administration of Public Education in the United States* have perhaps stated the case as judiciously as anybody. They say: " The state or the county or the local supervision district should be an area for the selection of books, for making contracts as to quality and price; all selection should be in the hands of experts, subject to the approval of a lay board, or ex-officio board acting in a lay capacity; the books adopted in any one subject should be of more than one kind, that is, of more than one authorship or publisher; any city or supervised division should have the right to appeal, on grounds of educational opportunity and advantage, for permission to use books not on the adopted list, with a detailed showing of the reasons for such a change, which reasons, it is needless to say, should come from expert educators; and the school should purchase books and loan them to pupils, so that not only will families moving into the districts not be subject to a heavy tax, but also the school may more easily change the type of book in use when newer and better ones are adopted by the central authorities, the old books continuing to be used as long as possible for supplemental purposes. Through some such scheme as this only can it become possible to provide for each school or district the books best adapted to it, with opportunities to procure the best, and at the same time to minimise the possibilities of corruption in this very important part of business administration."

The same close supervision is applied to school supplies as to text-books. The special maps which the trustees are required to purchase are specified, as are also blank books for book-keeping and writing. The system certainly minimises the possibility of corruption, but there is serious danger, through this and similar tendencies, of departments of education degenerating into mere agencies for the control of education; the spiritual nature of the educative process may be overlooked.

Examinations.—Before discussing the conduct of examinations in Canada, certain observations on examinations in general may profitably be made. Examinations, on the whole, are regarded as a "necessary evil." The task of the administrator is so to design them that they serve their intended purpose as well as possible. Although we know of medical examinations, psychological examinations, of examinations designed to test progress or knowledge or zeal or merit, of *viva voce* and practical examinations, of local and state examinations, the word "examination" usually denotes a test of merit or fitness, carried out by the state or some lesser public body. Some things a single examination cannot possibly test. It cannot test inherent capacity or natural ability. It cannot test appreciation of literature (the real test here is whether or not the candidate revels in good literature); it can only test his knowledge (memory) of facts about literature. It cannot test the historical sense; it can only test the memory powers regarding the facts of history. Further, many incalculable factors enter into all examinations. A candidate, for example, may be inherently clever, but have been taught badly or have been indolent; the questions may not suit him, or he may be temporarily indisposed by illness or nervousness. Examinations usually test by sample, since it is impossible to cover the whole field. Chance evidently plays an important part in such examinations. Again, zeal or application can only be imperfectly tested by examination; by his fuller knowledge the teacher alone is able to gauge this accurately. Marks and scores used by examiners are unreliable to a most surprising extent. The work done on standardised tests of proficiency in the United States has disclosed the fact that subjective ratings are very variable. Two equally competent examiners may give very different ratings to the same sample. The task before the examiner is to convert subjective into objective ratings. Marks are frequently given (and rightly in many cases) for work that would be valueless in the world of commerce or labour. We give 30 per cent. for two additions right out of six; such habitual computation would lead to censure and probably to dismissal in a bank or commercial house. In much the same way we give certificates of competency to prospective teachers for 60 per cent. knowledge, when 100 per cent. is needed in the class room. But the arguments need not be laboured. What we are concerned about is, to what extent Canada realises these limitations, and what steps she takes to overcome them.

As will naturally be inferred, examinations in Canada are things of solemn import. Each province conducts a whole series of state examinations. Ontario, for example, has the high-school entrance examination, and the following departmental academic examinations: senior high-school entrance, senior public school graduation, lower school normal entrance and faculty entrance, model entrance, middle school normal entrance, upper school faculty entrance, Parts I. and II., and junior matriculation. The jurisdiction over the examinations is jealously guarded. This can easily be understood. Standards can be more easily determined when under one central control, and, what is of even greater importance, the work of the teachers of the province can be controlled to a very high degree through the agency of state examinations. The magnitude of the Ontario system can be understood from the statement that over $100,000 annually is spent upon it.

Only a Canadian born can be expected to know the intricate details of the various provincial examinations in their entirety. Suffice it to say that the various departments keep very close watch over each examination. The regulations governing the examinations which admit pupils to high schools in Ontario cover ten pages of print. Such topics as (1) the subjects prescribed for study and for examination, (2) limitation of courses by inspectors, (3) schemes for admission to high school, (4) centres and dates for examination, (5) duties of candidates and inspectors, (6) fees, (7) principal's reports on candidates, (8) the valuation of answer papers, (9) pass and honour standing, (10) admission on certificate, (11) organisation of the entrance board, its composition, chairman, secretary, examiners and presiding officers, (12) expenses of examination, (13) reports to the department and the school board, and (14) the disposal of answer papers, are dealt with in minutest detail.

A departure along the lines of the accrediting system found in the United States for high schools has been made in Ontario for public schools. Candidates may, under certain conditions, be admitted on the certificate of public school principals. When an entrance board of examiners deems it expedient to adopt a scheme of certification, it may request the inspector of the district to make a report on the character of the teaching, the organisation and the management of each public school. If the report is satisfactory, the principal of each school is directed to forward a certified list of the candidates recommended, together with the time-table, copies of promotional examination papers and any other records pertinent to the inquiry. The entrance board then settles which candidates shall be admitted. The rejected candidates, however, have the option of writing the entrance examination in the usual way. A similar procedure could with profit be adopted for pupils entering universities, normal schools, and faculties of education. When everything is considered, it must be admitted that the teacher knows the pupil best; and many of the difficulties outlined in the first part of this section disappear under the accrediting system.

The Rural School Problem.—Canada is still predominantly rural, and her biggest educational problem is the rural one. The centralisation of industries has destroyed the local manufactures of the village, and attracted workers to the factories of the cities. The lack of social life in rural communities has operated in the same way; the rural youth seeks the wider opportunities of the city. Urban populations grow more rapidly than rural, in spite of the attractions of free lands and high prices for farm produce. In education it has resulted in rural schools being left almost wholly under the charge of women teachers, frequently of low academic and professional qualifications. Especially is this true of Quebec and the maritime provinces, where the status of the rural teacher can be judged by the regrettably low salary she obtains. It is not an exaggeration to say that in the provinces east of the Ottawa River the average salary of rural teachers is lower than that of unskilled labourers in the same territory. These low salaries, combined with bad rooming and boarding facilities, and a general indifference on the part of the public towards the lot of the teacher, cause a constant shifting of rural teachers. Some school communities regard themselves as fortunate if they manage to retain the services of the same teacher for a whole school year.

Fortunately, a better condition of affairs is to be found in Ontario and provinces to the west. The teachers are better trained and better paid. The problem of accommodation for the teacher still remains. It will have to be solved either by consolidation of schools, or by the erection of dwellings for teachers.

A new course of study is needed for rural schools. At present the rural children are fed on the same intellectual fare as urban children. Rural environment is different from city environment; the prospective careers of rural children are different from those of urban children. While the fundamentals of culture remain the same for both, there is plenty of room for differentiation in subject matter and methods of teaching. At present the rural school trains away from the farm, and is one of the chief agencies of rural depopulation. If the rural school programme were given a new content, and, more important still, were taught by people with greater sympathy towards rural life, a wonderful good would be accomplished. The rural school would vie with the church in becoming a real community centre around which the intellectual and social life of the people revolved. The introduction of the school garden, courses in agriculture, and the school fair, has revolutionised the life of whole communities in Saskatchewan. But zeal and unbounded enthusiasm are a *sine qua non* of success in rural school work. So long as the inspector is the only permanent educational force, these qualities will be notable for their rareness among rural teachers.

Perhaps the most hopeful sign of the times, so far as rural education is concerned, is the consolidated school. In the west the consolidated school has been almost invariably an unqualified success. In Ontario it has failed almost as invariably. When the reasons for this are closely investigated, it is found that the smallness of the school section has most to do with it. It is impossible to have a successful consolidated school when the conflicting interests of different sections are not adjusted or removed.

But consolidation in Manitoba, Saskatchewan and Alberta has resulted in the following permanent benefits: (1) Better school facilities, even with the added cost of the transportation it involves; (2) the employment of several teachers, the enlargement of classes, and the better grading of the pupils; (3) the development of manual and domestic training, school gardens, courses in agriculture, and school libraries; (4) the safeguarding of the health of the children by proper methods of transportation; (5) the employment of better teachers at bigger salaries (chiefly owing to the relief from rural isolation); (6) the development of a more intelligent interest in education among rural school communities, and the willingness of the bigger men to serve as trustees. Transportation and consolidation have, in a phrase, brought the benefits of an urban education to the doors of rural communities, without sacrificing that which is distinctively rural and best in rural life. It is to be hoped that consolidation will be rapidly extended to Ontario and the provinces to the east.

Bi-lingual Schools.—No country with a "foreign" immigration can be wholly free of the bi-lingual problem in her schools, and Canada is no exception to the rule. Further complications arise through the presence of the French-Canadians, who cling most tenaciously to their language and customs. As the French-speaking people settle in solid units in various parts of Canada, they introduce the language problem wherever they go.

Section 93 of the British North America Act says in part: "In and for each province the legislature may exclusively make laws in relation to education, subject and according to the following provisions:

"1. Nothing in any such law shall prejudicially affect any right or privilege with respect to denominational schools which any class of persons have by law in the province at the union."

The French-speaking population of Ontario have persistently contended that this provision includes the right to teach the French language in their separate schools in Ontario, and have denied the validity of any regulations which restricted the use of the French language as a means of communication between teacher and scholars. "Regulation 17" has been a bone of contention between the department of education of Ontario and the trustees of English-French separate schools ever since it first appeared. The 1913 form of the regulation included the clause, "Subject, in the case of each school, to the direction and approval of the chief inspector, the following modifications shall also be made in the course of study of the public and separate schools :—

"(1) Where necessary in the case of French-speaking pupils, French may be used as the language of instruction and communication; but such use of French shall not be continued beyond Form I., excepting that, on the approval of the chief inspector, it may also be used as the language of instruction and communication in the case of pupils beyond Form I. who are unable to speak and understand the English language."

The same circular states that those French-speaking pupils who are unable to speak and understand the English language must begin the study and use of the English language as soon as they enter school.

In 1916, in arguing the case before the Privy Council, the counsel for the French-Canadians urged that (1) " So to regulate the use of the French language in the separate Roman Catholic school in Ottawa constituted an interference, and is in some way inconsistent with a natural right vested in the French-speaking population"; and (2) "that it interferes with the right to manage which the trustees possess."

The judgment delivered by the Privy Council forever quashes both these claims. With regard to the first: the right to language "does not relate to education," but to "debates in the Houses of Parliament in Canada, and the Houses of Legislature in Quebec, and by any person, or in any pleading or process in, or issuing from, any court of Canada, and in and from all or any of the courts of Quebec." As to the second, there is in their lordships' view no substance in the contention. "The right to manage does not involve the right of determining the language to be used in the schools. Indeed, the right to manage must be subject to the regulations under which all the schools must be carried on." So far, therefore, as schools in provinces other than Quebec are concerned, the French population can only claim rights to their language where such are given by a provincial education department through its regulations.

Besides the French-Canadians, there is a sect known as the Mennonites, who claim to have rights over their language (German) in the schools. The problem is somewhat obscure; but it seems as if they had a clear moral claim to it, but not the shadow of a legal claim. In all other cases the claim of English to be the supreme language of the schoolroom cannot even be questioned. Just where Canada stands on the bi-lingual question may be judged from the following resolution, which was passed unanimously by the Alberta legislature in 1915: "That this House place itself on record as being opposed to bi-lingualism in any form in the school system of Alberta, and as being in favour of the English language being the only language permitted to be used as the medium of instruction in the schools of Alberta, subject to the provisions of any law now in force in the Province of Alberta on that behalf." The last clause refers to the provision of a primary course in the French language. Alien languages, therefore, as far as Canada is concerned, may be kept alive in the home and in the church, but not in the public schools.

So much for the legal and political aspects of the case. The educational question is a different one. It is how best to teach the "foreigner" English. It is realised by all that it is well-nigh impossible to do much with the adults; but the young can be easily taught, providing proper methods are used. As to the best method there are conflicting opinions. Some maintain that the best approach can be made through the vernacular, that the most successful teacher is the "foreigner" who knows both English and the tongue of the foreign pupil. By this method English would be added to the child's vernacular little by little. The contrary opinion is held by the majority of people most competent to judge. Psychology also supports the direct method of teaching English from the time the little alien sets foot upon the school threshold. The best teacher is one who does not know the child's speech. The child must then make himself understood in English; and it is remarkable how quickly he learns to do it from a skilful, enthusiastic teacher. The war will undoubtedly lead to the strengthening of the claims of English throughout Canada, with the possible exception of Quebec; and bi-lingualism as a political, though not as an educational problem, will lapse into desuetude.

Medical Inspection of Schools and Scholars.—The demand for the medical inspection of children arises at a comparatively late period in educational development. Schools must first be built and equipped, and a proper supply of qualified teachers furnished, before a nation can turn to the important task of medical inspection. Canada is still, in many respects, in a pioneering stage. The erection of school districts has up to the present absorbed almost all her educational energies. Only a few of the larger cities of older Canada, like Toronto, have developed medical inspection to any great extent. Yet Ontario has outlined a very good scheme both for school medical and school dental inspection, and a few of the larger centres have already put the regulations into effect. The legislation is permissive; as the people become educated to the necessity for medical inspection, it will be made compulsory.

The Ontario regulations for school medical inspection empower any school board, or any collection of school boards, acting through a school medical inspection committee, to institute a scheme for the medical inspection of schools and scholars. The expenses are to be met in the same way as any other school expenditures. Either a school medical officer (with assistants and nurses) or a nurse or nurses shall be appointed. The minimum number of visits shall be: (*a*) rural school sections—once a quarter; (*b*) villages—once a month; (*c*) towns—once a fortnight; and (*d*) cities—once a week. The medical officer is required to make a complete physical examination of each pupil as soon as practicable after his admission to the school. Subsequent examinations may be made more cursorily in the class room. The parents are informed of any defects which may be discovered, and are required to have them duly attended to. The nurses employed under the direction of the school medical officer may be required to visit the homes of the children and confer with the parents regarding any case of defect or disease in their children. Sanitary conditions of the school building are discussed at a conference with the school inspector, who is directly responsible to the minister, and whose duty it also is to report thereon to the board employing him, and, when necessary, to the medical officer of health of the district. The duties of a school nurse in separate employ of a board are, so far as her qualifications enable them to be, the same as those of a school medical officer. Where no school medical officer or school nurse has been appointed, the medical officer of health for the district may assume the duties of school medical inspection under the regulations. The city of Toronto has wisely placed its school medical inspection under the control of the medical officer of health for the city, thus eliminating needless waste through overlapping spheres of action.

The regulations regarding dental inspection are very similar to those of medical inspection. In this case it appears to be far more necessary to establish treatment clinics in order to get the defects attended to promptly.

Medical inspection outside of Ontario is still in its early infancy.

Finance of Elementary Education.—Canada, when compared with European countries, raises an astonishingly large proportion of her school funds by local taxation; a correspondingly small one by legislative grants. Before the Fisher financial reforms, England obtained fifty per cent. of her educational income locally, and fifty per cent. from government grants. The additional Fisher grants raise the government proportion almost to sixty per cent. In Ontario the legislative grants in 1914 amounted to less than five per cent. of the total school receipts, while in Alberta in 1915 they amounted to 6.4 per cent. of the total. Yet the English Board of Education actually exercises less control over the spending of school funds than any Canadian department of education. The argument still remains valid if one considers the indirect aid given to the schools through provincial maintenance of institutions for training teachers, etc., for England does the same.

The local school sections or districts may, either directly, or indirectly through the municipalities of which they form a part, levy and collect an annual tax for school purposes. The local funds of Ontario come from the following sources: (1) the local ratepayers, (2) the township in which the school section is situated, and (3) the county in which the school section is situated. The chief tax is the township levy. Where the assessed value of the property of the public school supporters in a township of a county is at least equal to an average of $30,000 for each school section therein, the township council must collect at least enough money through taxation to give each school district in the township $300 for each teacher it employs throughout the school year, $200 for the second teacher it employs, and a proportionate sum for additional teachers. The county council levies annually a tax on all assessable property of the county "at least equal to that part of the legislative grant which is apportioned by the minister of education on the basis of the equipment and accommodations of the rural schools of the county." That is, the county must assist in improving the school buildings and equipment of all the schools situated within its borders. The organised counties of Ontario must also provide one-half of the salary of the local inspector, an arrangement which obtains nowhere else in Canada. The rest of the local funds are raised by the trustees of each school section by a special tax upon the ratepayers resident within the section. The tax is large or small according to the educational enthusiasm or lassitude of the trustees. But this tax is collected through the township assessor and treasurer.

In Manitoba, the township or rural municipality is required to raise by general tax—based as in Ontario on an equalised assessment—funds for the purpose of providing a township grant to each of the school districts within its jurisdiction. In New Brunswick and Nova Scotia the county must levy a tax to provide for a county fund similar to that of Ontario.

The apportionment of government grants varies with each province. Every province, except Quebec, uses the teacher basis of apportionment; British Columbia practically uses no other. But there are as many schemes of distribution as there are provinces. In addition to apportionment on the teacher basis, Prince Edward

Island gives grants for conveyance of pupils to consolidated schools, and for school libraries; Nova Scotia for equipment, manual training, domestic arts, and school libraries; New Brunswick special grants to poor districts, for consolidated schools, conveyance of pupils, manual training, school gardens and nature study; Manitoba for length of term, recency of district organisation and average attendance; Saskatchewan for district assessment, attendance, and recency of district organisation; Alberta for district assessment, attendance, general efficiency and special improvement.

Quebec distributes the provincial school funds proportionately between the Roman Catholics and Protestants upon the census returns of each for the whole province. There is practically no other basis of apportionment, except that of special grants to poor municipalities.

The Ontario grant is primarily distributed to each county on the basis of average number of pupils in attendance at all the schools in a county, separate and public schools getting proportionate shares. The total grant to a county must be distributed among the individual schools in accordance with an elaborate scheme of fixed grants—grants for teachers' salaries, teachers' qualifications, school accommodations and equipment, etc., based on the inspector's annual report. The following summary of regulations shows the bases of apportionment to sections within organised counties. A different scheme obtains for "assisted schools," and for rural school sections in unorganised counties.

Fixed Grants based on Average Section Assessment.—Where such assessment is less than $30,000, the grant is $30; where it is at least $30,000 and less than $40,000, the grant is $25; and where it is between $40,000 and $50,000, the grant is $20. No grant is paid where the assessment reaches $50,000.

Grants based on Teachers' Salaries.—Each school shall receive forty per cent. of the amounts paid in teachers' salaries each school year (beginning in August and ending in June) up to a maximum of $600 salary in the case of each teacher, the computation being as follows:—

1. At $150 for a principal teacher and at $100 for each assistant teacher where the average section assessment, as defined above, of the township in which the school is situated is less than $30,000.

2. At $200 for a principal and at $150 for each assistant where said assessment is at least $30,000 and less than $40,000.

3. At $250 for a principal and at $150 for each assistant where said assessment is at least $40,000 and less than $60,000.

4. At $350 for a principal and at $250 for each assistant in the case of all other assessments.

Where the teacher performs all the duties of caretaker, the inspector shall deduct from the amount paid him for his services as teacher and caretaker a sum not exceeding $25 in any one case, and where he performs part of the duties, a proportionate amount of $25.

Grants based on Teachers' Qualifications.—The following grants shall be paid on the basis of the grade of the teacher's professional certificate, and the length of his successful experience, the competency of each such teacher being duly attested by the county or provincial inspector, as the case may be, of the school for which such grant is claimed. For teachers employed for the whole academic year the full grant shall be paid in each case, and the grant shall be one-half the amount if the teacher with the certificate has taught for less than a year, but for at least one term.

1. If the teacher's total experience in the schools of the Province of Ontario shall have been at least five years on July 1 next: (*a*) For a first-class certificate, $40; (*b*) for a second-class certificate, $25.

2. If said experience shall have been less than five years on the same date: (*a*) For a first-class certificate, $30; (*b*) for a second-class certificate, $15.

Grants based on Equipment and Accommodations.—Out of the combined legislative and county grants, each school in a district shall receive ten per cent. of the approved value of its school equipment, up to a maximum grant of $20 for each principal and $2.50 additional for each assistant. Out of the combined legislative and county grants, each school shall receive a grant on the character of its accommodations, the maximum being $30 for a one-teacher school, $45 for a two-teacher school, and $60 for a school with more than two teachers, in accordance with Table VI.

Special Grants: (a) *For Fifth Forms* (*i.e.* Grade IX. of public and separate schools).—The schools are divided into three grades, according to staff employed. Grades A and B receive a fixed grant of $20; Grade C, $10. According to equipment, the grant is ten per cent. on the approved value, with maxima as follows: library, $200; scientific apparatus, $200; maps, charts and tellurian, $50; art models and supplies, $50. According to salaries: for rural schools, ten per cent. of the excess of principal's

Table VI

Accommodation Grants

Grade.	One Teacher.				Two Teachers.				Three Teachers and over.			
	I.	II.	III.	IV.	I.	II.	III.	IV.	I.	II.	III.	IV.
Closets	$4.00	$3.00	$2.00	$1.00	$6.00	$4.50	$3.00	$1.50	$8.00	$6.00	$4.00	$2.00
Water supply	2.00	1.50	1.00	.50	2.00	1.50	1.00	.50	3.00	2.25	1.50	.75
School grounds . . .	4.00	3.00	2.00	1.00	5.00	3.75	2.50	1.25	6.00	4.50	3.00	1.50
School buildings . . .	2.00	1.50	1.00	.50	3.00	2.25	1.50	.75	4.00	3.00	2.00	1.00
Class rooms	2.00	1.50	1.00	.50	3.00	2.25	1.50	.75	4.00	3.00	2.00	1.00
Halls					2.00	1.50	1.00	.50	3.00	2.25	1.50	.75
Cap rooms	2.00	1.50	1.00	.50	3.00	2.25	1.50	.75	4.00	3.00	2.00	1.00
Private rooms	1.00	.75	.50	.25	1.50	1.10	.75	.40	2.00	1.50	1.00	.50
Desks	2.00	1.50	1.00	.50	3.00	2.25	1.50	.75	4.00	3.00	2.00	1.00
Blackboards	1.00	.75	.50	.25	1.50	1.10	.75	.40	2.00	1.50	1.00	.50
Lighting.	2.00	1.50	1.00	.50	3.00	2.25	1.50	.75	4.00	3.00	2.00	1.00
Heating	4.00	3.00	2.00	1.00	6.00	4.50	3.00	1.50	8.00	6.00	4.00	2.00
Ventilation	4.00	3.00	2.00	1.00	6.00	4.50	3.00	1.50	8.00	6.00	4.00	2.00
Total	30.00	22.50	15.00	7.50	45.00	33.70	22.50	11.30	60.00	45.00	30.00	15.00

salary over $300, maximum $30; for urban schools, thirty per cent. of the excess of principal's salary over $300, maximum $60; for both urban and rural schools, twenty-five per cent. of the excess of the principal's salary over $600, maximum $60. The foregoing grants are for Grade A schools; lesser grants are paid for Grades B and C schools. According to teachers' certificates: grant of $25 for principal with a first-class certificate.

(b) *For Art.*—An annual grant of $60 to the supervisor of art in an urban municipality who holds an art supervisor's certificate, and an extra grant of $60 if he holds the diploma of A.O.C.A. from the Ontario College of Art. An annual grant of $40 to the teacher of art in the schools of a town or village who holds an elementary art certificate. An annual grant of $30 to the teacher of art in a rural school of at least six rooms. The board whose supervisor or teacher of art has earned the above grants must spend an equal amount upon equipment, towards which the department gives grants of $30, $20, and $20 respectively.

(c) *For Music.*—*Mutatis mutandis*, the grants for music are exactly the same as those for art outlined above.

(d) *For Manual Training and Household Science.*—To each board complying with the regulations: An annual grant for manual training of $200; for household science, $120; ten per cent. of teachers' salaries above $600, maximum of $200. For manual training and for household science equipment, first year, forty per cent. of value, maximum $400; next three years, twenty per cent. of value, maximum $200. An annual grant according to manual training accommodation, four grades running to totals of $65, $49.25, $32.50, and $16.25. The same for household science accommodation, $50, $38, $25, and $12.50.

(e) *For Agriculture and Horticulture.*—Providing the highest requirements of the department are met, a grant of $30 may be earned by the trustees, and $40 by the teacher. The grant to the trustees must be expended solely for the promotion of the cause of agriculture and horticulture in the community through the work of the school. Inspectors receive annual grants of $8 or $6 for each school teaching agriculture and horticulture through the medium of a teacher certificated or uncertificated in the subject respectively.

(f) *For Physical Culture.*—Providing the cadet corps consists of at least twenty boys, and certain specified conditions are fulfilled, the Dominion department of militia and defence gives an annual allowance of $1 per cadet, and $1 per cadet towards the provision and upkeep of uniform, while the Ontario department of education makes an annual grant of $50, which is to be spent as an addition to the instructor's salary or on equipment.

(g) *Rural School Libraries.*—The grant is distributed on a percentage basis. The purchase of books must not be less than $10, and the grant in no case exceeds $10 per school.

The scheme of grants for the public and separate schools of Ontario has been set out at some length to show the detail into which a department of education can go in the matter of distributing the government grants. The scheme works well in Ontario, but on general principles it seems as if a simpler scheme would accomplish the same ends. Any good scheme of grant distribution has to take the following factors into consideration: (*a*) the excellence of the teaching staff; (*b*) the regular attendance at school of all pupils of school age; (*c*) the encouragement of worthy educational effort along any line; (*d*) the equalisation of the educational burden throughout the whole province; and (*e*) the special needs of the poorer areas.

IV. THE ELEMENTARY TEACHING STAFF

No branch of Canadian educational effort deserves greater praise than that which is concerned with the academic and professional preparation of the teaching staff for elementary schools. Notwithstanding the newness of many sections of the country, attempts are everywhere made to secure teachers who have had, at least, a modicum of professional training. The ideal set before the country is that of a qualified teacher (or teachers) for every school. The teacher on permit or temporary licence is, therefore, a last resort. And even here it is necessary to add a note of explanation. Some of the teachers on permit are remarkably well qualified academically; they lack the current professional certificates which can only be obtained after a course of professional training. Some permit teachers are university graduates who enter the teaching profession for a year or two in order to earn a little money to carry them through the university professional schools of law or medicine. These teachers are frequently very successful. They have ambition and initiative. It must be confessed, though, that generally speaking the teachers on permit are the worst qualified, both academically and professionally, that are to be found in the schools. Canada is anxious to get rid of them.

Classification of Teachers.—Teachers may conveniently be classified according to the professional certificates which they hold. Besides teachers with provisional or limited certificates, teachers with first, second, or third class certificates are found in every province. As the country develops, the number holding only third class qualifications tends to diminish; those holding second and first to increase. The standard for each grade of certificate varies according to the province. Ontario has the highest requirements; Quebec and the maritime provinces the lowest. The nomenclature also varies. Quebec certificates are designated diplomas; New Brunswick and Prince Edward Island, licences; Nova Scotia, ranks. Manitoba and Ontario again divide the first class into two parts: Grade A and Grade B.

Taking the Ontario certificates as the standard (for although the highest, they represent the standard which other provinces are constantly endeavouring to attain), we find that:—

The third class certificate is obtained at a minimum age of nineteen years. It represents, on the academic side, scholarship attainments equivalent to two years in a standard high school; on the professional side, graduation from a model school with a four months' course. It is valid for five years, and trustees are forbidden to employ teachers with a third class certificate if teachers with a higher grade can be secured.

The second class certificate is also obtained at a minimum age of nineteen years. Graduation from a four years' course of high school academic work, and a year's professional training at a normal school, are its standards of qualification. An interim certificate is first awarded, which is made permanent at the end of two years' successful experience thereon, duly certified to by an inspector, provided the teacher is then twenty-one years of age.

The first class certificate is divided into two grades, A and B. Both grades demand, as a minimum pre-requisite qualification, graduation from a four to six years' course in a standard high school. The minimum age of entrance upon the course of professional preparation is nineteen years. Interim first class grade B certificates are granted after the satisfactory completion of a full year's prescribed course at a faculty of education of an Ontario university. Interim first class grade A certificates require a further three months' professional study. They are open only to candidates who hold either professional grade B or high-school certificates. These interim certificates, grade A and grade B, after at least two years of successful experience on the part of the holders of them, may be made permanent, providing the candidate is twenty-one years of age and the report of the inspector is satisfactory.

The variations from these standards may be classified as follows:—

Minimum age.—Alberta, Manitoba and Prince Edward Island allow women a minimum age of sixteen years for all grades of certificates. Saskatchewan has the following minima: females, seventeen years for third, eighteen for second and first; males, eighteen for third, nineteen for second and first. Quebec (Protestants) and New Brunswick have seventeen years for both sexes and for all grades of certificates. Nova Scotia's minimum ages are seventeen, eighteen and nineteen for third, second and first class certificates respectively.

Academic Qualifications.—Quebec Catholic school certificates have very low academic requirements. The elementary school diploma scholarship is equivalent to graduation from a sixth or seventh grade of a standard elementary school; the model school diploma from the eighth grade; the academy diploma (the highest) from a two years' high-school course. New Brunswick standards are not much higher. The scholarship demanded of the third class licentiate is that of a good eighth grade course; second class—one year of high-school work; first class—two to three years of high-school work. Prince Edward Island and Nova Scotia standards are on the average one year higher than those of New Brunswick.

Professional Qualifications.—In Prince Edward Island the only professional training given to any grade of teacher is that which is associated incidentally with the academic work of the Prince of Wales College. There is no professional test for the temporary diploma of the Protestant schools of Quebec, but if the teacher on permit is successful in teaching for two years and passes a written examination in school law and the art of teaching, the certificate is made permanent. The great demand for teachers in the west causes the period of professional training to be curtailed. Normally two groups of students pass through a training school each year. British Columbia requires two months' professional training for the third class certificate, six months' each for second and first. Alberta grants the third class to teachers who are successful in an examination in pedagogy. For second and first class certificates, four months' training at a normal school is required. Manitoba requires thirteen weeks' for third class; seven and one-half months' plus one year of experience for second;

twelve months' plus a special professional examination plus a year's experience for first.

Validity.—Third class certificates are usually valid for a stated term—three years in New Brunswick, Manitoba, Alberta, and British Columbia; one year only in Saskatchewan. The first and second class certificates are usually granted as interim certificates, which are made permanent after a year or two of certified successful teaching. It should, however, be noticed that interim certificates are seldom refused endorsation. To all intents and purposes the second and first class certificates are permanent from the beginning.

Other remarks.—The first class elementary and the model school diplomas of Quebec Protestant teachers are obtained after one year's professional training at Macdonald College, a privately endowed institution for the training of teachers, and the only one of its kind in Canada. The academy and the model school diplomas of the Roman Catholic teachers in Quebec may be obtained either by an extra-mural examination or after a year's work at the normal school. Graduates of the Roman Catholic universities in Quebec receive the academy diploma without examination, simply by attendance at lectures on pedagogy.

Sex Distribution of Teachers.—The large majority of Canadian elementary school teachers are women. Especially is this true of Quebec, New Brunswick, and Nova Scotia. Separate figures for elementary schools are not obtainable in all the provinces, but the figures given in Table VII., which refer to all teachers, understate the case so far as elementary schools are concerned.

TABLE VII

Sex Distribution of Teachers, 1915

Province.	Male.	Female.	Total.	Per cent. Male.	Per cent. Female.
Prince Edward Island .	152	434	586	25.9	74.1
Nova Scotia . . .	256	2,689	2,945	8.7	91.3
New Brunswick . .	184	1,922	2,106	6.3	93.7
Quebec (1914) . . .	232	7,523	7,755	3.0	97.0
Ontario	1,685	10,165	11,850	14.2	85.8
Manitoba	598	2,378	2,976	20.1	79.9
Saskatchewan (1914) .	1,552	2,949	4,501	34.5	65.5
Alberta	1,418	2,800	4,218	33.6	66.4
British Columbia . .	412	1,403	1,815	22.7	77.3
Canada	6,489	32,263	38,752	16.7	83.3

The table shows that Saskatchewan and Alberta, in which one-third of the teachers are men, are the most successful in attracting men to the profession and retaining them in it. The fact that salaries are higher in those provinces than elsewhere may have something to do with it.

Salaries.—Since salaries of teachers absorb from sixty-five to seventy per cent. of the total annual expenditure upon education, the average amount paid to each teacher is a fair index of the regard in which education is held by any community. If education is held in high regard, then relatively high salaries are paid, and *vice versa.* In Canada the average salary paid to elementary school teachers lies between that paid to an unskilled labourer on the one hand and that paid to a skilled artisan on the other. Here are a few facts about average salaries of Canadian teachers:—

	Male.		Female.
New Brunswick, 1915:			
First class	$ 845.30		$488.74
Second class	403.72		324.80
Third class	290.17		255.86
Manitoba, 1916:			
For all teachers		$768.00	
Teachers in towns and cities		957.00	
Teachers in rural schools		618.90	
Quebec, 1916:			
Catholic town lay teachers	684.00		265.00
,, rural ,, ,,	586.00		178.00
Protestant town teachers	1,409.00		491.00
,, rural ,,	474.00		281.00
Alberta, 1915:			
First class	1,120.00		826.62
Second class	815.63		776.93
Third class	757.03		753.49
Permit	748.86		716.54
Saskatchewan, 1915:			
First class	1,164.53		846.42
Second class	874.35		789.84
Third class	788.85		747.47
Provisional	779.39		743.16
Ontario, 1915:			
For the whole province	902.00		613.00
In cities	1,502.00		779.00
In towns	1,067.00		586.00
In villages	840.00		540.00
In rural schools	621.00		549.00
First class	1,340.00		651.00
Second class	757.00		587.00
Third class	524.00		458.00

All the tables show the financial advantage of the higher certificate. For Ontario a first class certificate means approximately six or seven years' study beyond the elementary school;

a second class five years'; and a third class two and one-half years'. Each additional year of preparation brings in a handsome financial return, which is received as long as the teacher remains in service. Further, in Ontario the possession of a degree in arts is worth approximately an additional $800 a year to a male teacher, and $300 a year to a female teacher.

On the whole, however, salaries may be regarded as distinctly low, although they compare favourably enough with most of the states forming the United States. Low salaries make for transiency in the teaching profession. In the western provinces the average length of service is less than four years. In Ontario, the male public school teacher has an average experience of 11.81 years; women 7.41 years; men and women together 8.08 years. Diagram I. gives the frequencies of the different amounts of experience in teaching of all elementary school teachers in Ontario. Since the average length of service is only 8.08 years, the whole public school staff, some 12,000, must be replaced in this brief period. The task of training 12,000 new teachers every 8.08 years is a formidable one for a busy province like Ontario to undertake.

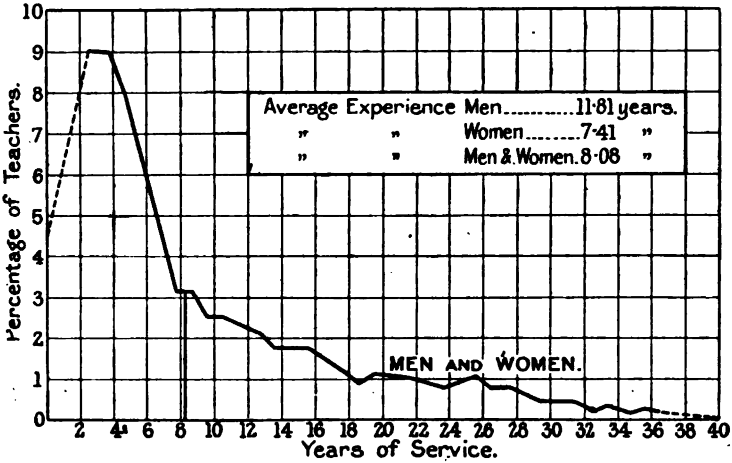

DIAGRAM I.

Relative frequencies of different amounts of experience in teaching of all teachers in elementary schools in Ontario. The total area between the curve and the base equals 100 per cent. The line perpendicular to the base at 8.08 years divides the area into two equal parts.

Distribution of Teachers by Qualification.—The higher grade teachers find employment in urban schools, the lower grade in rural schools. Among teachers of equal rank, those in urban schools are better paid than those in rural schools. Dr. Miller in his valuable study, ***Rural Schools in Canada***, discovered that of the lowest grade teachers, 97.2 per cent. in Alberta, 96.1 per cent. in Saskatchewan and 93.7 per cent. in Ontario were employed in rural schools. He gives the following tables of distribution:—

TABLE VIII

Distribution of Rural School Teachers by Rank

Province.	Below Third Class.		Third Class.		Second Class.		First Class.		Totals.
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	
Alberta	356	24.3	237	16.1	756	51.6	115	7.8	1,464
Saskatchewan . .	520	25.1	767	37.1	689	33.4	90	4.3	2,066
Ontario	1,099	19.0	2,513	43.5	1,953	33.8	201	3.4	5,766
Totals	1,975	21.2	3,517	37.8	3,398	33.5	406	4.3	9,296

TABLE IX

Distribution of all Teachers by Rank

Province.	Below Third Class (Permit).		Third Class.		Second Class.		First Class.		Totals.
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	
British Columbia	98	9.4	181	17.4	323	31.1	435	41.9	1,037
Alberta . . .	366	16.5	268	12.0	1,251	56.4	332	14.9	2,217
Saskatchewan .	541	20.2	837	31.3	1,082	40.4	212	7.9	2,672
Manitoba . .	187	7.0	799	30.0	1,331	50.0	345	12.9	2,662
Ontario (P.S.) .	1,173	12.7	2,755	29.9	4,455	48.5	786	8.5	9,169
Quebec (P. and R.C. Lay) .	4,735	63.1	2,025	27.0	619	8.2	121	1.6	7,500
New Brunswick	457	23.0	994	51.0	506	25.5	27	1.3	1,984
Prince Edward Island . .	166	28.0	309	52.2	116	19.6	0	0	591
Nova Scotia .	1,172	41.8	885	31.6	646	23.0	96	3.4	2,799
Totals . .	8,895	29.4	9,053	29.5	10,329	33.7	2,354	7.7	30,631

The figures refer to the year 1910. Later statistics would make a more favourable showing, owing to the generous provision of normal schools for the training of second and first class teachers throughout the whole Dominion. The graduates of these schools now number several thousand. Just how it has affected the schools may be judged from Diagram II., which shows for Ontario the enormous expansion in second-class certificates and the corresponding diminution in the number of third-class certificates and lower.

Pensions for Teachers.—Three provinces of Canada have comprehensive schemes for the pensioning of elementary teachers—New Brunswick, Quebec and Ontario. Of the three, that of Ontario is the most satisfactory, though some of its provisions are somewhat unfair.

The Quebec pension fund for teachers was established by an act of the legislature in 1880, and modified by an amending act of 1909. The act does not apply to teachers in holy orders or to nuns. Otherwise every teacher, normal school professor and school inspector is obliged to contribute annually two per cent. of his salary to the fund. Although teachers without legal certificates are required to contribute, they have no claims on the fund unless they become certificated in the regular way. Men teachers may provide a half pension for their widows by paying three instead of two per cent. of their annual salaries.

The pension is granted for either disability or old age. The disability allowance is granted to teachers who, having contributed to the fund for twenty years or more, are incapable of carrying on their duties as teachers through physical or mental disability. The pension ceases when the disability is removed.

The age limit for the regular pension is fifty-six years, provided that the applicant has taught at least twenty years in the schools of Quebec. Any teacher, not being on the pension fund, who ceases to teach, forfeits all the payments he has made to the fund, and any teacher who retires from service within ten years, whether from ill-health or other cause, also forfeits all interest he may have in the fund. Persons suffering disability, having served between ten and twenty years, may withdraw all payments without interest. Any ex-teacher, having previously had an interest in the fund and returning to the profession, may re-establish his claims.

For a man, the amount of pension is as many fiftieths (not exceeding thirty-five) of his average salary as the number of years he has served as teacher, *i.e.* the pension annually is equal to the sum of all his contributions.

For a woman, a more generous pension is given. She receives

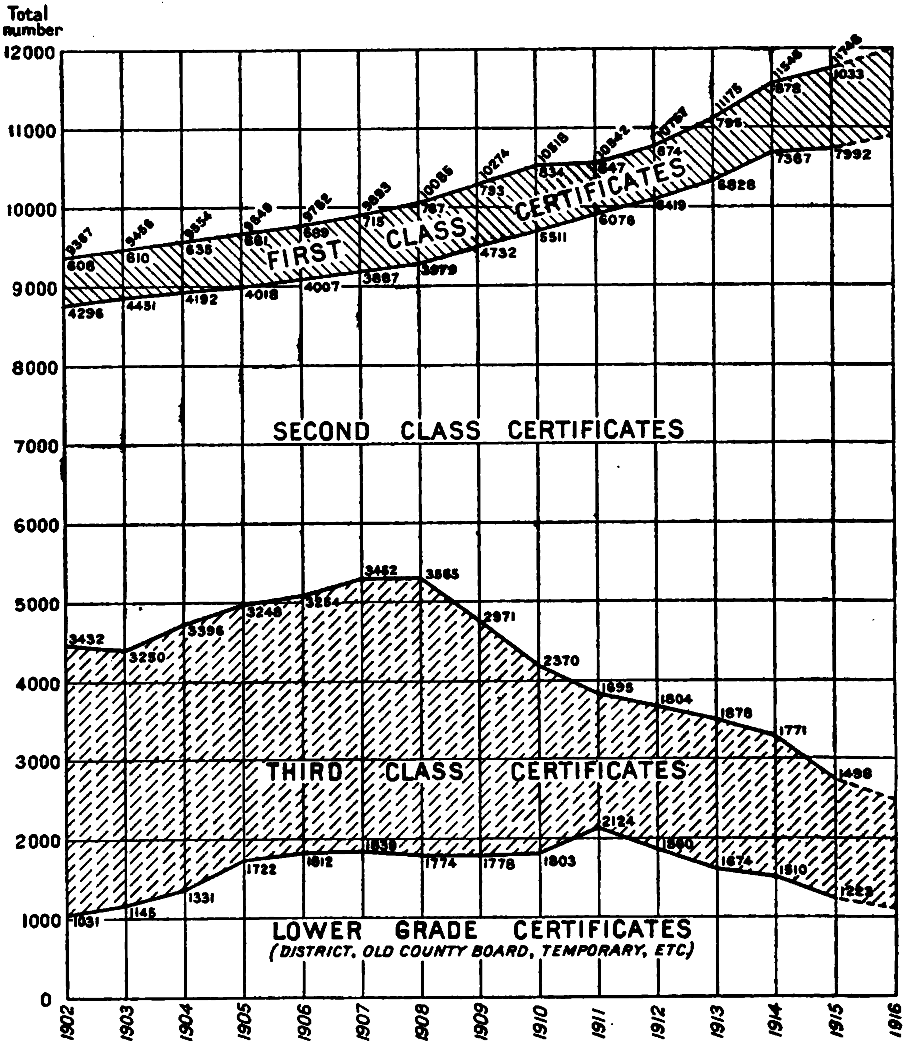

DIAGRAM II.

Showing the number of teachers holding first class, second class, third class and lower grade certificates in the public and separate schools of Ontario between the years 1902 and 1916.

a pension calculated firstly on the man's scale, and then increased by one-half, provided it does not exceed ninety per cent. of her salary. The government assumes all the additional expense of the increased rate for women.

Neither a man's nor a woman's pension may exceed $1060, and if it falls below $75 it is increased to this amount.

There are many sources of income, but the bulk of the pension fund is raised by stoppage of two per cent. of the teachers' salaries. The government contributes about $40,000 per year, interest brings in over $10,000, the school fund contributes $9000, and certain grants to local boards are reduced by four per cent. for the pension fund.

In 1916 the 879 pensioners received $118,097 from the fund, an average of $134.35 per pension.

The scheme is unfair. It is generous to the pensioners at the expense of those unable to qualify for a pension.

The persons included within the Ontario scheme are—all teachers in elementary, secondary and normal schools, all inspectors and administrative officers, and teachers and professors in the faculties of education and the practice schools attached to them.

The fund is maintained by a two and a half per cent. contribution of salary on the part of the teacher or inspector, and a similar amount on the part of the government. If the salary is less than $550 a year, contributions at this rate must be made, but to compensate for this, the nominal minimum pension is fixed at $365, the pension derivable from a salary of $550. In some cases a teacher receiving less than $550 is granted special permission to contribute two and a half per cent. of the actual salary he receives. In this case the minimum pension is proportionately reduced. Interest on the fund at current rates is credited half-yearly by the province.

The annual pension is normally granted after forty years of service, and is calculated at the rate of one-sixtieth of the average salary during the last ten years of service, multiplied by the number of years of service. The years of employment prior to the establishment of the fund (1916) count as half-years; those after 1916 as full years. If, by this method of calculation, a sum less than $365 is derivable from the fund, then the method of calculation is changed to that of $20 for each year of service, with a maximum of $365. The nominal minimum is $365, but there may be cases where less than this amount is receivable.

Conversely, in the case of a person paying such large amounts into the fund, for such long periods, that the contributions in themselves produce, at Dominion Government rates, an annuity greater than $1000 when the person becomes entitled to the pension, then the maximum of $1000 may be exceeded, since the annual allowance payable to him under the act then equals the amount of such annuity. A teacher or inspector may, however, retire after thirty years of active service, in which case he receives an actuarial *pro rata* pension.

A person suffering disability is entitled to a pension calculated in exactly the same way as the ordinary pension—that is, either one-sixtieth of average salary multiplied by years of service, or $20 per year, after fifteen years of service.

A teacher withdrawing from the profession before completing five years of service forfeits all payments; if he withdraws after five years, but before becoming entitled to a pension, he receives the whole of his contributions to the fund without interest. If an inspector or teacher dies in service, his contributions without interest are paid to his estate.

The pension fund is subject to an actuarial valuation every three years. If the fund is insolvent, certain benefits may be reduced or withdrawn.

The unfair clause in the scheme is that which calls for forfeiture of payments unless five years' service is given. In effect, it means that the young teachers, chiefly women, are compelled to make payments to meet the liabilities towards the older members of the profession. No pension scheme can rightfully do such a thing. The argument that the state has trained these teachers and has a right to their services is a weak one. The state also trains lawyers and doctors, but does not claim their services for five years, or mulct them of two and a half per cent. of their salaries. It is the simplest of matters to establish an excellent and equitable pension scheme in Canada. All that a province needs to do is to take two and a half per cent. of salaries, contribute a like amount, and enter into the scheme of Dominion Government Annuities,[1] where solvency is guaranteed, and nobody can be mulcted of his contributions.

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[1] See the Government Annuities Act, 1908; the moneys are paid into the Consolidated Revenue Fund.

TRAINING OF ELEMENTARY TEACHERS

The elementary teachers of Canada, with the exception of those trained at the Macdonald Institute in Quebec, are trained in provincial institutions. The faculties of education in Ontario are in reality provincial institutions, since they are supported mainly from provincial funds.

Throughout Canada the training of teachers consists of a year's professional training (less in some cases for the lower certificates, as previously indicated), superimposed on the academic training received in the elementary schools and high schools. Since the Ontario scheme is the prototype of the majority of the others, and the one to which they tend to approximate, it will be described in some detail.

The lowest certificate in Ontario is the third class. Training for this is received at a model school, of which there are eight in the province. The minimum standard for admission is the model entrance examination, which is based on a two years' course of study in a high school. The session is four months, and extends from the middle of August to the middle of December. The course of study is dominantly professional, for the time is too limited greatly to improve the academic qualifications of the students. The course of study includes methods in the various elementary school subjects, school management, and instruction in such subjects as music, drawing, hygiene and physical training. Each student is required to teach under supervision a number of practice lessons, twenty to thirty, depending upon the school facilities and the number of students in attendance. The principals are selected by the local boards of trustees, but the appointments must be approved by the department of education. The staff of the model school in the main determine the candidate's success or failure, although some of the final examinations are set by the department. The successful candidate is required to teach in Ontario at least two years after graduation.

In addition to the above, Ontario maintains four English-French model schools to prepare teachers for schools attended by French-speaking children. The course of study is similar to that of the other model schools, except that a large amount of time is devoted to teaching the methods of imparting a knowledge of English by the direct method. The session extends over the year, from September to June.

The main institution for the training of elementary teachers in Ontario is the provincial normal school. Here students are prepared for second class certificates. There are seven normal schools in the province wholly maintained by the central department.

Admission Requirements.—Before admission to a normal school, the applicant must produce the following: (*a*) a certificate showing his success either in the normal entrance or faculty entrance examination; (*b*) a statement signed by himself, stating that he is entering the normal school in order to qualify as a teacher; (*c*) an undertaking to teach in Ontario for one year after graduation; (*d*) a certificate of British citizenship; (*e*) a certificate of good moral character; (*f*) a certificate of physical fitness; and (*g*) a birth certificate, proving age to be at least eighteen years.

These requirements establish the *bona fides* of the students and are both wise and necessary.

The Students.—Teachers-in-training are drawn in astonishingly large numbers from the farm. The remainder are recruited from the higher ranks of industry and commerce, and the lower ranks of the various professions. They are steady, amenable to discipline, and hardworking. As the country develops and the teaching profession attains a greater stability, an even better type of recruit will be attracted to its ranks.

Courses of Study.—The regulations state that the principle of correlation should be kept in view throughout the courses. That this advice is not supererogatory can be judged from the details of the course which follow: (*a*) All the subjects of the public and separate school courses, and the subjects prescribed for admission into normal schools, shall be thoroughly reviewed; (*b*) special academic courses in reading, writing, and bookkeeping, art, physical culture, hygiene, vocal music, household science, manual training, agriculture and horticulture, and manners; (*c*) courses in the science of education, history of education, school organisation and management, and special methodology; (*d*) supervised observation and practice-teaching in model schools.

But this does not represent the full detail of organisation. The number of periods for each branch of the curriculum, the time of year in which the subjects shall be taught, the texts which must be used, etc., are all prescribed. Thus, science of education must absorb 70 periods; school organisation and management, 60; history of education, 30; manners, 5; spelling, 5; algebra, 5; geometry, 5; observation lessons, 40; practice-lessons, 20 or 25, according to the previous teaching experience of the student. As nearly as practicable, arithmetic must be taught 2 periods per week; grammar, 2; literature, 1½; composition and spelling, 1½; reading, 1; history, 1; writing and bookkeeping, 1; geography, 1½; nature study, 1½; science, 1; hygiene, ½; art, 2; music, 2; physical culture, 1; manual training, 1½; household science, 1½; agriculture, 1½; observation and practice-teaching, 4.

The normal-school masters are required to teach groups not exceeding forty. This necessitates in some cases as many as six or seven repetitions of a lesson or lecture. The elaborate nature of the curriculum, combined with frequent delivery, causes the lesson periods to be unduly short—from twenty-five to thirty-five minutes. The masters in charge of the academic work in a subject are required to develop its details in their teaching order, and, after each suitable step, themselves to teach model lessons in special public school classes, both in the normal school and in the model school itself. The master in charge of the science of education is required to illustrate formally by actual teaching the principles he has discussed in class. How he is to teach lessons to illustrate the nature of consciousness, mind and body, habit, sense-perception, memory, imagination, thinking, conception, feeling, sensuous feeling, emotion, mood, disposition, temperament, sentiments, the will, the sense of duty, education as the development of character, methods of child-study, periods of development, infancy, childhood, adolescence, characteristics of each period, the nature of education, educational institutions, school, church, home, vocation, the conflicting views as to the aim of school, and such other topics as are to be found in the detailed syllabus of the science of education, the regulations unfortunately leave us in the dark.

So many topics are essayed, that only a mere smattering of each can be given in the time allotted. How much of the following course in the history of education can be effectively given in thirty lessons of half an hour each?

HISTORY OF EDUCATION

The object of the course in the History of Education is to widen the professional outlook and rationalise school practice through the discussion of the development and of the merits and the defects of educational theories. It presupposes an historical background and discusses movements rather than individuals.

The course includes the following topics:

Education prior to the Fifteenth Century.—A very brief survey of significant movements, with reference to the following topics: Education among primitive peoples; Oriental education; education in Sparta and Athens; education in Rome; early Christian education; the rise of the universities; education and chivalry.

The Renaissance.—Its origin and educational significance; the humanistic movement; Vittorino da Feltre; Erasmus.

Reformation and Counter-Reformation.—The Reformation and the Renaissance, Luther; the schools of the Jesuits and of the Christian Brothers.

Organisation of Schools in Germany.—Melanchthon and Sturm.

The Reaction against Humanistic Education.—Rise of the scientific spirit; Montaigne; Bacon, Ratke, Comenius.

English Schools in Tudor Times.—Ascham; Locke.

Modern Educational Theories and Practices.—The psychological tendency, Pestalozzi, Herbart, Froebel; the scientific movement, Spencer; education for social efficiency.

Education in Great Britain and Ireland, and in the United States.

Education in Ontario and in the other Provinces of Canada.

Books of Reference:

Ontario Normal School Manual, *The History of Education.*
Monroe, *A Brief Course in the History of Education.*
Quick, *Educational Reformers.*
Kemp, *History of Education.*

The intentions of the central departmental officials in planning such courses were undoubtedly most praiseworthy. They have, however, over-reached themselves. It is practically impossible to discover anywhere a single opening for the exercise of initiative or experiment by the normal-school teacher. Surely it is a case where the letter killeth, but the spirit giveth life.

Certification.—The regulations state that the final standing of the teacher-in-training shall be determined on the combined results of his sessional records and his prescribed examinations, and his observation and practice-teaching records.

Some of the final examination papers are prepared by the staff, *e.g.* in art, vocal music, physical culture, nature study, manual training, household science, agriculture, algebra, geometry and manners. The final examinations in the other sixteen subjects are prepared by the department, and are uniform for the whole province.

The regulations governing the conduct of the faculties of education, integral parts of universities, which train teachers for first-class certificates, are almost as explicitly detailed as those for normal schools. The course of study is almost the same, the texts (normal-school manuals) are the same, the time subdivision is much the same. Under the circumstances it is impossible for the staff to feel that spirit of liberty and freedom which is the boasted inheritance of universities everywhere. The writer feels convinced that the relaxation of rules, instead of weakening the work, would strengthen it very greatly.

It would be impossible to find anywhere else in the world such a close centralisation of control as exists for the training of Ontario teachers to-day. Fortunately for Canada, the progressive provinces to the west have seen the unwisdom of Ontario's course. Principal McIntyre, of the Winnipeg Normal School, in his 1916 report, states: "But it is not length of training alone which is necessary. Variation is important. That is particularly true in a province such as Manitoba, where every district has its own peculiar problems. To general training should be joined a special training. A teacher must be more than a teacher in the abstract. She must be capable of meeting specific problems of instruction and management." Later he states: "The best solution of the problem, so far as the normal school is concerned, seems to be to differentiate the work of the students in some departments during a part of their course. Expressed in tabular form the programme would appear somewhat as follows:

"*Compulsory Studies:*
- Science of Education—pedagogy, psychology, etc.
- History of Education—great educators and their systems; current practices.
- Art of Education—in teaching and government; in play and work.

Elective Studies:
- Course for primary teachers,
- Course for intermediate teachers.
- Course for high-school teachers.
- Course for rural teachers.
- Course for teachers in non-English schools.
- Course for teachers of defectives.
- Course for principals and inspectors.
- Course for playground instructors.
- Course for specialists in various departments."

The writer feels that Principal McIntyre is working along the right lines. Canada trains "teachers in the abstract." Every teacher is presumably trained for every position; the probability is that he is not adequately trained for any. If Canadian teachers had to study half as many subjects, and those largely of an elective nature, they would be able to study them more thoroughly. Differentiation of schools is proceeding apace in Canada. Differentiation within schools is on the way. The training of teachers should conform to the new trend of events.

Training of Teachers in Service.—There are three main ways in which Canadian teachers are improved during their period of service—by inspection, through teachers' institutes and associations, and by attendance at summer schools. Compulsory attendance at teachers' institutes obtains throughout Canada. They extend only over two to three days, a period too short to do much serious work. But they entirely justify themselves in that they make for the solidarity of the profession, promote social intercourse, and give a certain amount of information and inspiration. The visits of the inspector are too infrequent to exert much influence upon methods, but much good may be accomplished by the sympathetic inspector who supervises rather than inspects. By far the best plan of continued training is through summer schools. It is gratifying to find such excellent summer schools organised and inspired by the various provincial departments of Canada. The summer schools of Toronto and Edmonton are, perhaps, the most fully developed at the present time. Improvement of academic standing is the chief goal, but the professional side of training is far from being neglected.

V. SECONDARY EDUCATION

In a previous section (II.) it was shown that secondary education, at least in rural areas, is somewhat sharply differentiated from elementary, some provinces going so far as to elect different boards of trustees to manage it. Secondary education is also superimposed upon elementary, just as it is in the United States; the secondary school which parallels the elementary school for a number of years—the standard type of Europe—is unknown in Canada, except in private institutions.

The normal age of transition from the elementary to the secondary is fourteen. Some educators believe that the change is made too late. They observe that in his studies the French or German graduate of a secondary school is about two years in advance of the corresponding Canadian or American boy. This is not to be wondered at. The European pupil has had nine years of secondary education, the Canadian only four. It is now believed that the time is mainly lost between the ages of twelve and fourteen. For pupils of these ages, be the intentions of educators and teachers ever so worthy, the school work becomes mainly a repetition of that which is done in the lower grades. The arithmetic, composition and geography are admittedly more advanced, whereas the European boy has exchanged these studies for algebra, geometry, foreign languages and sciences. As a matter of scientific fact, fourteen is too late in life to make the transition from elementary to secondary studies. The transfer should not take place during the storm and stress of adolescence. At that time pupils have already too many adjustments to make; why add those due to a new school environment? The change should be made not later than twelve, preferably at eleven or even at ten years of age. Further, no person can master foreign languages properly, either ancient or modern, who begins them as late as fourteen. The capacity for language is at its optimal period at about three years of age, after which it gradually fades, although such decay is hidden away under the habits of language which have been built up. If, however, we try to teach persons to speak who have been born deaf, we find that the task is fairly easy at three years of age, difficult at seven, impossible at ten. So far as the writer is aware, there is no case on record of a person born deaf having been taught to speak after reaching ten years of age. The language powers in normal persons have so far atrophied by the time fourteen years of age is reached, that to arouse them for Latin, Greek, French and German is well-nigh impossible. And what is true for languages holds also for several other secondary studies.

Such facts as the foregoing have caused widespread interest throughout Canada in what is known in the United States as the junior high-school or intermediate-school movement. Some provinces are seriously considering a reorganisation of their educational systems, which will give six years to the elementary school, three to the junior high or intermediate school, and three to the senior high school. From present agitations it looks as if Saskatchewan and Alberta, and perhaps Manitoba also, would make the change in the near future. These provinces are more and more directing their gaze southwards to the United States for inspiration, rather than eastwards to Ontario.

Types of Secondary Schools.—The standard secondary school of Canada is the high school of independent organisation with a four years' course of study. In a few sections of the Dominion, high schools with a six years' course have been developed. In others the high school is attached as an additional department to an existing elementary school, when the number of high-school pupils has grown sufficiently to warrant it. Thus, in Manitoba, an elementary school with ten or more pupils who have passed the high-school entrance examination may make application for intermediate standing. The secondary school of British Columbia is also attached to an elementary school; if it has ten pupils, it is called a superior school, if twenty, a high school. The fifth form of Ontario elementary schools has many of the marks of an attached high school.

Ontario has a highly developed system of secondary schools. Continuation schools, high schools and collegiate institutes, as well as night high schools, are found there.

Continuation schools are really rural high schools. They can be organised only in districts which are not already served by high schools. The staff never exceeds three, and may be as few as the equivalent of one and a half full-time instructors. Only a general course of study may be attempted. But it must be distinctly understood that the continuation school is neither a night school, as in England, nor an advanced department of an elementary school; it has an independent organisation, a separate building, and a separate staff.

High schools may be established by boards of education in urban centres and by county councils in a municipality which has at least 1000 inhabitants. Before a high school is recognised, it must comply with regulations regarding staffing, accommodation, and equipment. For example, it must employ the services of a principal and at least two assistants; it must have equipment of at least the following values: library, $300; scientific apparatus, $300; biological specimens, $50; maps, charts, globes, etc., $50; art models, $50.

Collegiate institutes are superior high schools, meeting satisfactorily more onerous conditions regarding staff, accommodation and equipment. On the staff must be at least four teachers who have specialists' certificates, one each for classics, mathematics, moderns and history, and science, and the staff as a whole must be of such a standard as to make it possible to carry the pupils in the course of study as far as the standards of the senior matriculation or faculty entrance examination.

Night high schools have only recently been instituted. They are held in day high-school buildings, and are subject to the same regulations respecting the discipline of the pupils, the duties and qualification of teachers, and the use of text-books, as day schools. They provide an opportunity for the impecunious but ambitious student with grit to get a secondary education, the necessary stepping stone to the university and the professions.

High schools in general have their courses divided into divisions —the so-called lower, middle and upper schools, nominally of two years each, through which a pupil must pass in *seriatim* order. Continuation schools carry the pupils only as far as the end of the middle school; sometimes not beyond the lower school.

Entrance Requirements.—There are, as we have seen, two ways of gaining admission to high schools: (1) by passing an entrance examination, and (2) upon the certificate of the elementary school principal. The junior high-school entrance entitles the candidate to a place in the lower school, and the senior high-school entrance examination admits to the middle school. Admission upon certificate, comparable to the high-school accrediting system in vogue in the United States for entrance to a college or university, was introduced into Ontario to minimise the evils of examinations. Only too frequently the teachers were found to direct their chief efforts towards gaining successes in examinations, since this was the criterion which the uncritical public used in judging their efficiency.

Courses of Study.—Two distinct theories or plans regarding the making of curricula are discoverable in the high-school courses of Canada. One theory holds that a large number of different branches should be carried at the same time, and continued over a number of years. This may be called the extensive plan. It provides a sound general education, but leads to uniform courses rigidly prescribed. The second is the intensive plan. The branches studied at one time are relatively few, and, as soon as the syllabus has been covered, the subject is dropped. Few subjects are carried beyond a session. This second plan tends to greater variety of courses, and generally is the more flexible. The eastern provinces lean to the first type of curriculum; the western to the second.

The Ontario high schools offer (*a*) a general course taken by those who merely desire a general secondary education; and (*b*) special courses of the following types: (1) the courses for university matriculation, and the preliminary examinations of the learned professions; (2) courses for admission to model and normal schools and the faculties of education; (3) the household science course; (4) the commercial course; (5) the agricultural course; (6) the manual training course; and (7) the middle-school art course.

The subjects which may be offered in the lower-school course, providing the staff is qualified to teach them, are manners and morals, physical culture, reading, English grammar, English composition, English literature, Canadian and British history with historical biography, arithmetic, algebra, geometry, Latin, Greek, French and German, elementary science, including botany, zoology, physics and chemistry, art, commercial subjects, including book-keeping, writing, shorthand and typewriting, manual training, household science, agriculture and horticulture. The subjects which actually are taken by pupils depend partly upon the examination for which they are preparing, and partly on the size and qualifications of the staff. Both these conditions, unfortunately, make for uniformity. For example, before a pupil enters the middle school he usually passes the lower school entrance examination, the subjects for which are—oral reading, English literature, geography, spelling, English composition, writing, English grammar, British and Canadian history, arithmetic, algebra and geometry, together with elementary science and art, or Latin and French, or Latin and German. Entrance to model schools, normal schools and faculties of education depends wholly or in part on the candidate's success in the above subjects, including the science option. These examinations, since they are taken by the majority of the candidates, determine the whole character of the lower-school course.

As soon as the candidate reaches the middle school, reading, English grammar, arithmetic and commercial subjects are dropped, Canadian history becomes merged into British history, geography is retained as historical geography, ancient history is added, and elementary science takes on a more advanced character. Examinations at the end of the course, admitting pupils to normal schools, include English composition, English literature, British and Canadian history, ancient history, algebra, geometry, physics and chemistry.

The subjects taught in the upper school are English composition and rhetoric, English literature, mediæval and modern history, algebra, geometry, trigonometry, Latin and Greek, French and German, physics, chemistry, mineralogy and biology. The upper-school examination admitting successful candidates to the faculties of education may be taken by high-school pupils either as a whole or in two parts. Part I. includes English composition and rhetoric, English literature, history (first course), algebra, geometry, trigonometry and physics. Part II. comprises history (second course), biology and Latin, with chemistry and mineralogy, or French and German, or Greek and German, or Greek and French. Teachers in service may divide the examination into four parts, for each of which instruction is offered in summer schools.

A glance at the list of subjects taught in each of the divisions of the high school shows that, firstly, a large number of subjects are carried each year, some of which in the lower school would be classed elsewhere as elementary school subjects. Many subjects, like English, physical culture, history, manners and morals, Latin and physics, are carried throughout the whole six years, while the majority find a place in the time-table from three to five years. Practically the only options allowed are two languages instead of two sciences, or of elementary science and art. Latin is a compulsory subject in most examinations. Secondly, it will also be observed that the examinations are so arranged that many subjects are practically made compulsory, and to this extent the curriculum is uniform for all. Other subjects, which do not count heavily in the examinations, are taught reluctantly, in spite of the stimulus of generous grants.

In addition, uniformity is engendered by the detailed prescription of topics under each subject, and by the authorisation for the lower and middle schools of one text only for each subject. Teachers are enjoined to keep strictly to the topics and the text prescribed.

In marked contrast with the practice of Ontario is that of Saskatchewan. Instead of detailed prescription, we get general statements; instead of the subdivision of subjects into constituent parts, we get unification or correlation. The following outline of a course of study, prepared by Dr. Snell, has been proposed and is likely to be accepted for the high schools of Saskatchewan:

FIRST YEAR

1. *English.*—Literature and oral reading, composition, spelling.

In composition the teacher of English will be responsible for teaching the principles involved, while throughout the full high school course an essay every two weeks will be required. These brief essays are to be related to the subjects of study for the year and to be read by the teacher of the subject concerned. The essays, rewritten if necessary, are to be retained in loose-leaf binding for the year. The spelling will be related to the various subjects of study, and each teacher will be responsible for the spelling in connection with his own subjects.

2. *Mathematics—unified* (*or correlated*).—Arithmetic and mensuration, with simple generalisations of arithmetic. Such knowledge of algebraic principles as will enable the student to solve simple questions and give him the power to apply the equation to the solution of problems.

3. *General Science—Geography.*—An outline of such definite work in

commercial geography as may be considered necessary. Such physical geography as shows a close connection with the principles of physics.

4 and 5. *Options.*—Any two of languages, art, music, manual training, household science, and commercial work.

SECOND YEAR

1. *English.*—Literature and oral reading, composition (essay work only), grammar (review of the essentials of the sentence).
2. *Mathematics.*
3. *General science*, with special reference to agriculture.
4. *History.*—Canadian and British.
5. *Options.*—Any two of languages, art, music, manual training, household science, commercial work (one-half time to each option).

THIRD YEAR

1. *English.*—Literature, essays.
2. *Mathematics.*
3. *History.*—General history, the Canadian Constitution.

4 and 5. *Options.*—Any two of languages, physics, chemistry, biology, music, agriculture, household science, manual training, commercial work.

FOURTH YEAR

Five units to be selected from the following groups—not more than two to be chosen from any one group. A unit is one hour per day or five hours per week in a subject.

1. *English.*—(*a*) Literature (first course); (*b*) literature (second course).
2. *Mathematics.*—(*a*) Algebra, geometry, trigonometry as far as the first year of a university; (*b*) advanced mathematics—solid geometry and elementary analytic geometry.
3. *Science.*—Physics, chemistry, biology.
4. *History.*
5. *Languages.*—Latin, Greek, French, German.
6. *Music.*

Such a programme as the above seems quite revolutionary for Canada. There are few states of the American Union which could show as much freedom in regard to options. The scheme is undoubtedly on the right lines. The writer feels that its success will depend upon the care exercised by those in authority in advising students what subjects to choose. Wide options often lead to haphazard selection, with the result that the course taken by a student is inco-ordinated. The student should, as far as possible, have from the beginning some definite end in view; his course for each year should make definite progress towards this end.

British Columbia organises its high schools along lines similar to those followed in Ontario. Instead, however, of lower, middle and upper schools, each taking two years, the divisions in British

Columbia are—the preliminary course, junior grade; the advanced course, junior grade; the intermediate grade; the senior grade; and the senior academic grade; each taking one year. The passage from grade to grade is determined by means of examinations conducted by the provincial education department. There is also a commercial course, covering three years of school life, and organised within the regular high schools. In this course are found such branches as book-keeping and business forms, typewriting, shorthand theory, laws of business, stenography, business correspondence, accountancy, statute laws and elementary economics and civics. The text-books for the course are recommended, not prescribed.

Text-books.—High-school text-books are usually authorised, and penalties are attached to the use of unauthorised texts by a teacher or pupil. A few provinces have authorised lists which contain several books, or sets of books, in each subject. In such cases the local board is usually obliged to choose from this list one book, or one set of books, in each subject, and these are to be used to the exclusion of all others. Quebec revises its list once in four years, but every book struck from the lists at the revision may remain in use one year longer. The Ontario high-school texts include such well-known books as Fraser and Squair's *French Grammar*, Wrong's *History of England*, etc. There is one authorised text in each subject of the lower middle, and such is the general excellence of the series that other provinces freely use texts from the Ontario list. There is an annual revision, but texts are usually authorised for a period varying from five to ten years. The high-school texts, like those for the public schools, are produced remarkably cheaply, being, on the average, about one-half the price of corresponding texts used in the United States.

Examinations.—Canadian high schools are examination ridden. Not only are there state examinations for entrance and leaving, but also at intermediate stages of the course. Several provinces divide up the high schools into three or more divisions, grades or schools, and passage from one to the other may depend upon success in a state examination. The staff of the school is not regarded as competent to pass on a pupil's progress providing the career the pupil has in view is that of a teacher, since it would lead to wide variations of standards from school to school. The Ontario state examinations have been most carefully organised and standardised. The regulations for them give such details as the qualifications and duties of examiners, the fees charged, the qualifications of candidates, the percentage marks required for pass or honours, the method of appeal in case of failure, etc. One feels in passing around the province that examinations influence far too greatly the life and work of the schools.

The provincial examinations of Nova Scotia are unique in that all candidates, whether they pass or not, receive each a certificate showing the proficiency in each subject of the examination. These certificates are accepted for what they are worth for admission to the normal and other colleges and universities, not only in Nova Scotia, but by many provinces and states abroad.

Inspection.—Inspection, in such highly centralised high-school systems as exist in Canada, necessarily plays an important part. The high-school inspectors are chosen by the central departments from members of the high-school staff who hold high academic and professional qualifications. They have wide powers and exert a powerful influence over the schools.

The Ontario regulations state that "every high-school inspector, while officially visiting a school, shall have supreme authority in the school, and may direct teachers and pupils in regard to discipline or to any or all of the exercises of the school. He shall make inquiry and examination, in such manner as he may think proper, into the qualifications and efficiency of the staff, the adequacy and suitability of accommodations and equipment of the school, and all matters affecting the progress and the health and comfort of the pupils." This fairly represents the Canadian attitude towards inspection. The inspector's duty, practically the sole duty so far as any official statement is concerned, is to see that the regulations are obeyed. Penalties for disobedience and for shortcomings are fixed by him, and imposed by the department whose servant he is. Penalties, of course, may also be imposed by the board acting on the advice of the principal.

Finance of Secondary Education.—Secondary schools are maintained by (1) fees, (2) local taxation, and (3) legislative grants.

The secondary schools of Nova Scotia and New Brunswick are practically free; elsewhere the fees are very moderate. In rural Ontario, for pupils whose parents live within the county but outside the high-school district, the fee is fixed by the county, but it must not exceed one dollar per month for each pupil. The fees of pupils living within the high school district are fixed by the trustees, who may, if they deem it expedient, charge no fees at all. Pupils living outside the county may be charged fees not exceeding the actual cost of their education. For the whole province the average fee is a little less than $4.50 per year. Two Protestant high schools of Quebec, one in Montreal and one in Quebec, which succeeded two ancient Royal grammar schools, have "scholarship pupils" in attendance. The lieutenant-governor has the right of nominating fifty free scholars for the higher classes of these two high schools. The scholarships are known as "Government Scholarships." In addition, the Protestant school board of Montreal offers fifty scholarships carrying free tuition, and a similar plan is followed in Quebec, the scholarships being, however, fewer in number.

In Ontario the county is required to pay to each high school within the county an amount which is at least equal to the legislative grant. After the county and legislative grants have been received, any further amount, in addition to pupils' fees already paid, needed to meet the cost of maintenance must be made up by a municipality high-school tax, the amount of which is fixed by the board of trustees.

The legislative grants for high schools are usually made on one or more of the following bases: teachers employed, accommodation and equipment, teachers' salaries, and average attendance. The grants of British Columbia and New Brunswick are mainly on the teacher basis. The basis of apportionment for county academies in Nova Scotia is the number of authorised days taught by the teachers of the academic class (providing the average salaries do not fall below $800 per annum) and the following scale: $300 for one teacher and average attendance 15; $300 for a second teacher and average attendance 35; $300 for a third teacher and average attendance 70; $200 for a fourth and average attendance 100.

The Ontario grants are as follows:

1. A fixed grant of $300 for high schools with fewer than four teachers, and of $275 for other high schools.
2. In respect of equipment, six per cent. of the total approved expenditure, but so as not to exceed $73.50 in case of high schools with two teachers, or $100.50 in the case of high schools with three or more teachers.
3. In respect of school accommodation, a maximum of $114 in the case of high schools with two teachers, and of $195 in the case of high schools with three or more teachers.
4. In respect of salaries, six per cent. of the approved expenditure over $1500, the grant not to exceed $600.

In respect of equipment and accommodation, there are detailed schedules showing on what grounds the legislative grants are apportioned. There are also small grants for approved schools according to grade and rank, and many special grants to the teacher or the institution (or both) for art, manual training and household science, agriculture and horticulture, and physical culture. As similar grants to the preceding for elementary schools were discussed in some detail in an earlier section, the subject will not be pursued any further.

The Teaching Staff.—The qualifications demanded of high-school teachers are, on the average, very high. The principal must hold a principal's or a first-class teacher's certificate, together with a degree from a Canadian or other approved university. The assistants must hold a high-school assistant's certificate, and in the collegiate institutes of Ontario a certain number of the staff must be holders of specialists' certificates as well.

These certificates are obtained by attendance at the highest type of training institution a province possesses. In Ontario, high-school assistants' certificates are obtained at faculties of education. Before entering upon a course for a high-school certificate, the candidate must submit evidence that he holds a degree in arts or in agriculture, and certificates similar to the ones described for entry into a normal school (*supra*). The minimum age, however, is fixed at nineteen years. The course extends over a year, and is largely professional in character. The programme of studies is divided into three parts: I. The history of education, the science of education, school organisation and management; II (A). Grammar, literature, composition, arithmetic, algebra, geometry, history, geography, Latin, and (*a*) any two of French, German, Greek, or (*b*) physics, chemistry and biology; II (B). Writing and book-keeping, reading, art, physical culture and hygiene; III. Observation and practice teaching in high schools. It will be observed that the only option allowed is that between languages on the one hand and sciences on the other. As a matter of fact, the majority of the teachers pass into schools where they are required to teach very few of the subjects for which they train. If more options were allowed, the subjects could be treated more fully by the teachers, to the subsequent advantage of the schools within the province. The argument used in favour of such a wide course is that some of these teachers may have to teach in a one-teacher school, where every high-school subject, of necessity, would have to be taught by them. It is an excellent illustration of that well-known maxim about the tail wagging the dog.

Ontario schools are now sufficiently highly developed to make specialisation in teacher-training legitimate. But tradition dies hard.

Specialists' courses are offered in the following fields—classics, English and history, moderns and history, French and German, mathematics, mathematics and physics, science, and household science. Before a candidate is allowed to enter a specialist course, evidence of academic standing in the chosen field is required. The courses are similar to those for other high-school teachers, except that a specialist candidate must attend weekly seminars in his subject, and undertake special observation and practice-teaching in the specialist field selected.

The courses, as in normal schools, are rigidly prescribed. The teachers cannot depart a hair's breadth from the courses or texts laid down. Originality and initiative are destroyed, and the criticism so often levelled at Ontario education, namely, that it is so highly centralised as to destroy the spirituality of the educational progress, remains true for this field.

The examinations, however, are set and marked by the teachers of the various subjects. Failure in practice-teaching causes the candidate to fail in the whole examination. Successful candidates receive interim certificates, which are made permanent after two years of satisfactory service.

In Quebec the Catholic secondary teachers receive training in the normal schools provided for teachers of lower grades. Teachers in orders are exempt from attendance and training; they receive professional as well as academic training in their own religious orders. There are no special Protestant colleges for training secondary teachers. McGill University, however, has a chair of education. Undergraduates in arts may take a course in education, pass an examination thereon, do a certain amount of practice-teaching under the guidance of the professor of education, and receive a teacher's diploma at graduation. Bishop's University possesses similar powers of granting diplomas; but, having no chair of education, the lectures are given by the principal and several of the professors.

In the other provinces little headway has been made in the provision of special institutions for training secondary teachers.

Salaries of Secondary Teachers.—Secondary school salaries are high in Ontario and provinces to the west, low in Quebec, and medium in the Maritime Provinces. The average salaries for Quebec are indicated in the following table:

Teacher in	Male.	Female.
Roman Catholic intermediate and secondary schools in towns	$ 781	$265
Roman Catholic intermediate and secondary schools in the country	449	159
Protestant intermediate and secondary schools in towns	1,206	738
Protestant intermediate and secondary schools in the country	1,013	381

Salaries of grammar-school teachers in New Brunswick averaged $1194 in 1915, and those of superior school teachers $776.

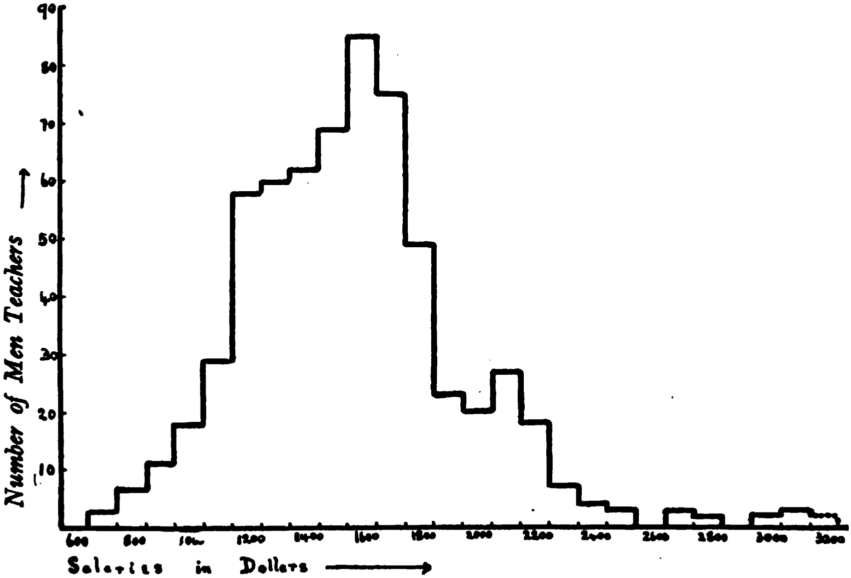

DIAGRAM III.

Distribution of salaries of high-school men teachers in Ontario.

In Ontario, the statistics of salaries of teachers in high schools and collegiate institutes for 1916 are as follows:

Average annual salary, principals	$1,813
Average annual salary, assistants	1,359
Average annual salary, all teachers	1,430
Highest salary paid	3,500

Such facts as the above do not tell the whole story regarding salaries. In 1913 the writer made a careful study of salaries of high-school teachers in Ontario. Those for 1917 would not be materially different. Diagrams III.-VI. give in diagrammatic form some of the facts he then discovered.

Tenure and Pensions.—Only a few words need be said regarding these important factors in a teacher's life. Tenure is everywhere secure, the teachers being employed under written agreements. Teachers reasonably proficient are invariably retained. Where pensions for elementary teachers are in operation, the schemes are extended to include secondary teachers as well.

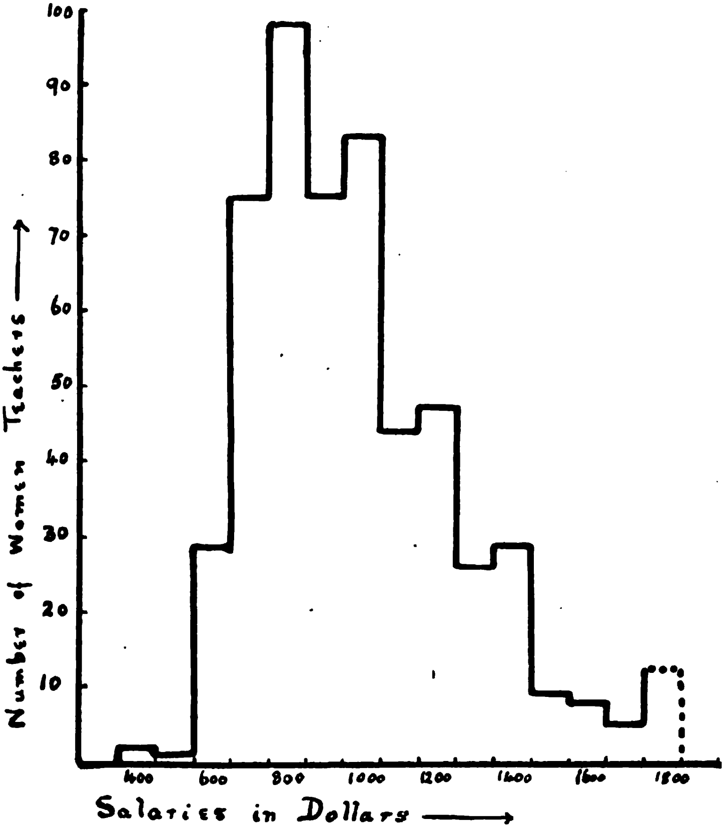

Diagram IV.

Distribution of salaries of high-school women teachers in Ontario.

In conclusion, we may fairly state that the secondary school

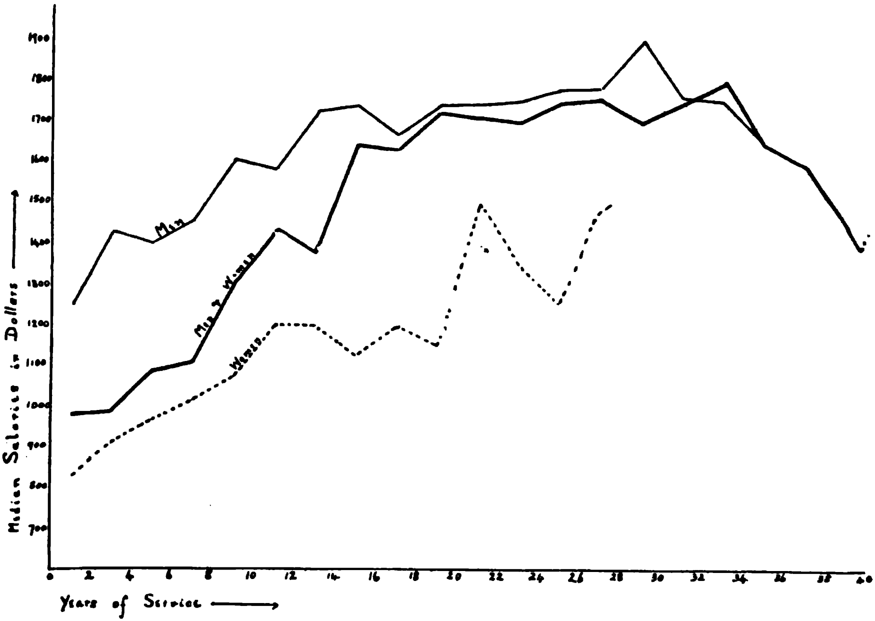

DIAGRAM V.

Curves showing the relation of salary to experience of high-school teachers in Ontario. Both principals and assistants are included.

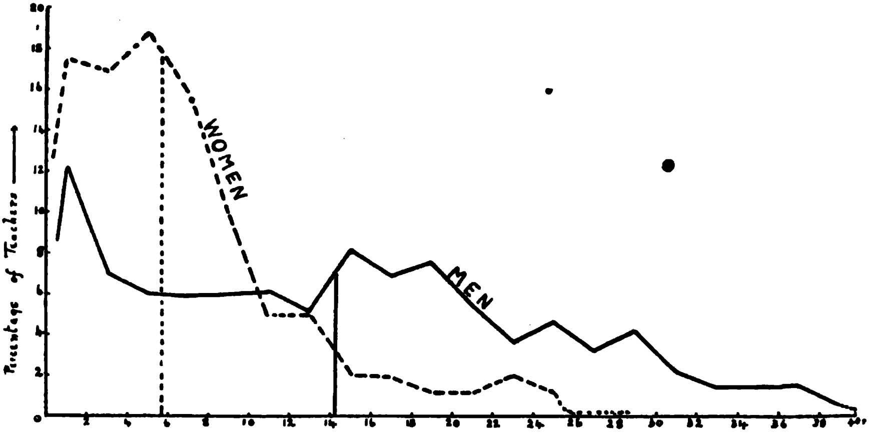

DIAGRAM VI.

Relative frequencies of different amounts of experience in teaching of men and women teachers in all high schools. The areas between the curves and the base equal 100 per cent. The two lines perpendicular to the base divide the areas into halves. The figures on the base line represent years of service.

system of Canada, considering the stage of her economic development, is remarkably well organised. Its chief weakness is over-uniformity, probably due to the prevailing over-centralisation. Canada, as we have remarked, is just entering on an era when different types of schools are being evolved. There are now in existence schools of commerce, household science, agriculture and technology. This differentiation is a step in the right direction, but differentiation of curricula within the individual schools is still urgently needed. In order to make this reform effective, there will have to be a drastic reorganisation of provincial examination systems; for these, at bottom, seem to be the immediate factors determining the uniformity.

VI. VOCATIONAL EDUCATION

The difference between vocational and avocational education is one of degree, not of kind. For every kind of schooling has its vocational aspects. The study of languages in a university, or art in a college of art, may be pronounced vocational, since these subjects are frequently taken up by students who intend immediately to apply the knowledge which they gain to the earning of a living. But custom dictates that the term vocational education should be limited to such branches of education as concern agriculture, industry and commerce, household science, etc.

Vocational studies, like all branches of learning, are first found in the highest institutions of learning; afterwards they creep down through the high schools into the elementary schools. Arithmetic was a university subject in mediæval times; it is now found in the lowest grades of the public schools. Manual training, household science and agriculture first proved their worth in secondary schools and colleges; only later were they introduced into the elementary schools. With strictly vocational studies like carpentry and plumbing, the question has frequently been asked —Should they too be introduced into elementary schools? Opinion at present is inclining against such action. The work of the elementary schools, it is thought, should be restricted to general or preparatory education. While skill in the use of tools and materials should certainly be encouraged in every pupil, the teaching of special trades within the elementary school should just as certainly be precluded. Vocational education, which of necessity aims at the production of a skilled person able immediately to earn a living, should be exclusively reserved for the adolescent period and later.

Hence a sharp line ought to be drawn between manual training, which aims to develop a general skill or dexterity with tools, and the study, say, of carpentry or blacksmithing, which aims to apply technical skill to special wage-earning occupations.

The Macdonald Movement.—Canadian education, especially on the vocational side, owes a great deal to the far-sightedness and generosity of the late Sir William C. Macdonald of Montreal. In brief, the aim of this benefactor was the uplift of rural communities through the reorganisation of rural education. Drawing, nature study, experimental science, manual training, agriculture and household science were either to be freshly introduced or to receive a new emphasis. Strangely enough, the work was to begin in urban centres, since the man in the rural districts imitates the man in the town. If city leaders could be got to recognise the value of manual training and other forms of practical education, rural communities would " follow suit."

Accordingly, in 1899, the Macdonald Manual Training Fund was instituted. Manual training centres were organised in connection with the public schools in twenty-one places in all parts of Canada. These were guaranteed maintenance for a period, in most cases, of three years, and the pupils paid no fees. Teachers, specially qualified in manual training, were at first brought over from England, but, as time went on, Canadian teachers were trained in the subject. Before the end of the three-year period, Macdonald was maintaining forty-five teachers at a monthly cost of $3600 and upwards of 7000 pupils were taking the courses. Summer courses and Saturday courses were also arranged for the training of teachers. At the end of the demonstration period, the various local and provincial authorities took over and extended the work. The equipment was presented to the school boards, and, in the case of normal schools, to the provincial education departments.

The next project was to improve seed by careful growth and selection. A prize fund of $10,000 was set apart, to cover a three-year period. Prizes were given to boys and girls who best selected the largest heads of the most vigorous plants, and grew seed from those heads on specially tended plots. Of the 1500 boys and girls who entered upon the scheme, 800 completed satisfactorily one year's work, and 450 completed the full three years' course. As a result of this activity, the crop yield of spring wheat in 1903 showed an average improvement of 18 per cent. in the number of grains per hundred heads, and 28 per cent. of increase in the weight of grains per hundred heads over that of 1900. The results from oats were equally encouraging. Out of this grew the Canadian Seed Growers' Association, which has done such marvellous work in connection with the improvement of the size and quality of the kernels, the even maturing of grain, the adaptation of varieties to suit local conditions of soil and climate, the purity of varieties and strains, the development of resistance to diseases, and the increase of productivity throughout the whole Dominion.

Next in order came the Macdonald Rural Schools Fund, through which school gardens were established at each of five rural schools in each of five provinces. The cost of maintaining a peripatetic teacher, who taught nature study and superintended the gardens, for each group of five schools, was borne by the fund. The pupils were shown the value of seed selection, the rotation of crops, and the protection of crops against weeds, insects and disease. As a result of these demonstrations, flourishing school gardens and school fairs sprang up in every province of the Dominion.

A further step in this carefully-conceived scheme resulted in the establishment of four consolidated rural schools, one each in Prince Edward Island, Nova Scotia, New Brunswick, and Ontario, to demonstrate the value of this type of school for rural districts. The cost of the new school building and the extra expense of maintenance over the cost of the small rural schools which formerly served the locality were, for a period of three years, provided from the rural school fund. The schools were each equipped with the usual assembly hall and classrooms, and also for manual training, household science, and nature study with a school garden. The school in Ontario has not been a great success, but there are signs that the obvious errors of its organisation will be eliminated, and that Ontario will soon proceed to erect a number of consolidated schools which will, it is hoped, flourish as gratifyingly as those of Manitoba.

Having paved the way in these comparatively humble fashions, Macdonald next gave the sum of $182,500 to provide buildings and equipment at the Ontario Agricultural College, Guelph, to train teachers now in service for this re-vitalised education. The Macdonald Institute, as it is called, provides long courses in household science and manual training, and has become the centre at which many vigorous short courses for farmers' wives and daughters in cooking, sewing, and other branches of domestic arts are provided.

Lastly, Macdonald established the college which bears his name at St. Anne de Bellevue, near Montreal, at a gross cost of nearly $7,000,000. It is incorporated with McGill University, being under the same board of governors. There are three departments, (1) the school of agriculture, (2) the school of household science, and (3) the school for teachers. The school of agriculture receives mention later. The school of household science deals with the three primal necessities of life—food, clothing, and shelter. It has a school for research, and provides instruction for the homes of the people. The school for teachers prepares teachers both for city and rural schools. It is closely associated with the other branches of the institution, inasmuch as all students take certain classes together. Thus the future teacher, farmer and home-maker learn to know something of each other's lives and difficulties, and in this way, perhaps, solve many of the problems which beset an agricultural population.

Considerable space has been given to the Macdonald Movement, for in it we find not only the origins of much that is best in Canadian education, but also the germs of many present-day vocational activities.

Agricultural Education.—Great attention is naturally paid to this aspect of vocational education, because of the dominant part played by agriculture in the economic life of the country. We have seen that the introduction of agriculture and horticulture and the establishment of gardens in connection with schools have proceeded very rapidly during recent years. The school fair, found in great numbers in the prairie provinces, has stimulated a genuine interest in all that appertains to rural life.

Much of the increased zeal regarding these matters is attributable to the passing by the Dominion Parliament of the Agricultural Instruction Act, 1913. By this act a sum of $10,000,000 was set apart for distribution during the decade 1914-1923. The moneys are apportioned and paid as follows:

> (*a*) An amount not exceeding $20,000 shall be paid in each year to assist in the work of veterinary colleges established in the provinces, the said annual amount to be distributed among the colleges qualified and legally authorised to grant degrees in veterinary science in proportion to the number of students enrolled at the said colleges respectively for the previous year, and in accordance with such regulations and conditions as may be prescribed by the Minister;

(*b*) The sum of $20,000 shall be paid in each year to the government of each province;

(*c*) The remainder of the appropriation for each year shall be allotted and paid to the governments of the respective provinces in proportion to the populations of the said provinces respectively as determined by the latest decennial census.

These huge sums, averaging $1,000,000 per year, may be used either in providing instruction through the schools and colleges, or, more indirectly, through a variety of agricultural organisations. Of the latter there exist in Ontario alone such organisations as: (1) associations—the vegetable growers', bee keepers', corn growers', cattle breeders', sheep breeders', swine breeders', horse breeders' and dairymen's; (2) societies — agricultural, horticultural and entomological; (3) institutes — farmers' and women's; (4) unions—agricultural and experimental; (5) clubs—the numerous farmers', boys' and girls' clubs. All of these are entitled to receive financial help from the Dominion funds which are distributed through the provincial departments of agriculture.

The increased grants to schools which teach agriculture have been mentioned previously. It now remains to describe the activities of the various agricultural colleges.

The Macdonald College, we learned, was divided into three parts, one of which was a school of agriculture. This school constitutes the faculty of agriculture of McGill University. Candidates must be eighteen years of age, of satisfactory moral character and health, must have been vaccinated, and must have worked for a season on a farm. The course may extend over four years, in which case it leads to the degree of bachelor of science in agriculture. No fees are paid by Quebec students during the first two years; the fees for the third and fourth years are fifty dollars a year. Besides the four-year course leading to the degree, short practical courses of two weeks each in live stock, cereal husbandry, horticulture and poultry, and a two-year course leading to a diploma are also organised. The staff, grounds and equipment are all excellent. Much valuable research is being undertaken by the staff.

The Ontario Agricultural College at Guelph was established in 1874 with two main objects—to train young men in the science and art of husbandry, and to conduct experiments and publish the results. It is affiliated to the University of Toronto, which grants the degree of B.S.A. (Bachelor of the Science of Agriculture). The college is excellently staffed, and offers the following courses: (*a*) four years' course, leading to the B.S.A. degree; (*b*) two years' course, intended for farmers; (*c*) factory dairyman's course of twelve weeks; (*d*) farm dairy course of twelve weeks; (*e*) poultry course of four weeks; (*f*) stock and seed judging, two weeks; (*g*) fruit-growing course, two weeks. There are also short courses for teachers, and for others who wish to do practical work in some particular branch. All students of the agricultural course must have done one year's practical farming before coming to the college. The fees for tuition are twenty dollars a year for the first and second years, fifty dollars for the third and fourth years. Students mostly reside in the college; a few reside in rooms conveniently near. A very large number of farmers attend the winter courses, many bulletins of practical scientific interest are issued, and an enormous correspondence is maintained with near and distant farmers on matters pertaining to the farm. The Agricultural College co-operates with the Provincial Government in a new development. Young men with the B.S.A. degree have recently been appointed as county instructors in agriculture, whose duties are to advise and to give lectures in various centres of the county. It is believed that this will do much to increase both the interest in, and the practical knowledge of, agriculture in all the country districts. The college has very large grounds, a farm of 345 acres, wood-lots for the work in forestry, acres for experimental purposes, and numerous stables for the large live stock. The staff of the Ontario Agricultural College has been instrumental in producing and introducing such valuable field crop strains as the O.A.C. No. 72, and the O.A.C. No. 3 varieties of oats; the O.A.C. No. 21 barley, and the O.A.C. No. 61 spring rye. Altogether the college is a first-rate institution, doing most valuable work for Ontario and Canada.

The College of Agriculture, Saskatoon, is a constituent part of Saskatoon University. It is richly endowed in land, having a good prairie farm of 2500 acres, on which the various experiments in field husbandry may be carried out. These experiments at present are upon questions of choice, improvement, management, tillage, rotations and soil fertility. Nearly 600 improved varieties, more than 125,000 plants and 1300 crosses have been or are still under investigation. Experiments in crop management, tillage, rotation of crops and the effect of fertilisers are also being undertaken. The college possesses many valuable breeds of cattle, including Shorthorns, Aberdeen-Angus, Ayrshires, Holsteins and Jerseys. The poultry comprise turkeys, Wyandotte and Barred Rock fowls. Experiments upon beef production, the breeding of sheep and swine and the keeping of swine on pastures, etc., show that the college is fully alive to the nature of the work it can do for the district in which it is situated.

The other colleges, schools or institutes of agriculture are situated at Truro, Nova Scotia; Ste. Anne de la Pocatière and Two Mountains, Quebec; Winnipeg, Manitoba; Claresholm, Olds, Vermilion and South Edmonton, Alberta; and Point Grey, British Columbia. The work done is not equally advanced at all the colleges, but each one grapples scientifically with the problems which confront its own community.

In addition to the provincial organisations already enumerated, the Agricultural Instruction Act applies to some which are national in character. The Dominion Seed Growers' Association, the various cow-testing associations, the seed branch, live-stock branch, and publication branch of the Dominion Department of Agriculture have proved of inestimable value to the Canadian farmer. But the work which most closely touches him is that done by the Dominion experimental farms and stations. The first five of these, the Central Farm, Ottawa, the Nappan Farm, Nova Scotia, the Brandon Farm, Manitoba, the Indian Head Farm, Saskatchewan, and the Agassiz Farm, British Columbia, were established in 1886. Since then fourteen other stations have been established in various parts of the Dominion. The Central Farm at Ottawa is organised in thirteen divisions, as follows: (1) field husbandry; (2) animal husbandry; (3) horticulture; (4) cereals; (5) chemistry; (6) forage plants; (7) botany; (8) poultry; (9) tobacco; (10) economic fibre; (11) illustration stations; (12) apiculture; (13) extension and publicity. What was formerly the entomological division became, in 1914, the separate entomological branch of the Department of Agriculture. The experiments conducted by these farms over a range of thirty-two years have been invaluable. The results of studies relating to the breeding and feeding of farm live stock, the production of butter and cheese, field crops, natural and artificial fertilisers, cereals, grasses and other forage plants, fruits, vegetables, plants, trees, plant diseases and injurious insects, have been freely disseminated. The discovery that manure taken fresh from the farmyard is equal in crop-producing power to the same weight of rotted manure, and that manure loses in the process of rotting from fifty to sixty per cent. of its weight, has revolutionised the use of this fertiliser in Canada. Marquis wheat, which has the baking qualities of the famous Red Fife, and ripens from five to ten days earlier, is a discovery of the experimental farms, and proving of immense value to the prairie farmers. The farms are also bureaux of information to which agriculturists resort for the solution of their difficulties in farm work.

But in spite of these excellent qualities the Dominion Act has one serious drawback. The moneys are distributed through provincial organisations, and up to the present no adequate method of supervising expenditures has been devised. The writer is convinced that the act is more widely interpreted than it was ever intended to be. It is another illustration of the weakness of the system of purely provincial control over education. Ultimately some federal powers will have to be granted.

Household Science.—Domestic science and crafts are taught in every province of the Dominion. The work done in elementary and secondary schools has been outlined in previous sections. Work of an advanced character is provided in many institutions whose primary aim is the training of teachers of domestic science. For example, the Montreal Technical School gives courses in both English and French. The English classes comprise the following—cooking, sewing, dressmaking and laundry work. Those in French include a normal course from the beginning of October to the end of April, a vocational normal course of three weeks during the month of July, and a similar course for nuns during August.

The Faculty of Household Science of the University of Toronto, besides doing the work of a regular university faculty, gives, under the ægis of the Faculty of Education and in behalf of the Ontario Department of Education, a one year's course for ordinary certificates in household science. The course of study includes the following: food and food preparation, household management and housecraft, sewing, methods in household science, elementary applied chemistry, and a minimum of six practice lessons per student, with an equal number of periods of observation lessons, in the public and high schools of Toronto.

The feeling is general throughout the Dominion that insufficient attention is devoted to household science and arts. These subjects should be introduced more widely into both elementary and secondary schools, and taught by thoroughly competent teachers. So many domestic operations have been industrialised in factories, that if these valuable educative agents are to be saved for the nation, they will have to be taken up by the schools. And to achieve this object many new training schools for the training of teachers of domestic science and arts will have to be established.

Technical, Industrial and Commercial Education.—Work of the character indicated by the heading is largely undertaken in schools especially organised for the purpose. Some of these institutions, for example the Central Technical and Art School of Toronto, compare favourably with the best to be found in the United States, England and Germany. On the whole, however, the work is not so highly developed as that of the corresponding agricultural branch. There are few day schools, and the drawbacks of night schools have not yet been overcome. Tired teachers too frequently teach tired pupils. Only the most vigorous can stand the strain.

A few large industries have established schools for the training of their apprentices (*infra*), but the problem of the continued education of the adolescent worker is far from being solved.

In Nova Scotia, the director of technical education supervises the technical work of the province, and acts as principal of the Nova Scotia Technical College at Halifax. This college is affiliated with the following universities of the province: Acadia, Dalhousie, King's, Mount Allison, and St. Francis Xavier; and under the terms of the foundation, the universities provide a two years' course in engineering, while the Technical College offers professional courses in the several departments of engineering, covering the last two years' course. Every branch of engineering is dealt with at the college, and on the completion of the course the degree of B.Sc. is granted.

Nova Scotia has also organised many technical schools, both day and evening, at various centres, and has established coal-mining schools in several of the mining districts of the province.

Quebec has many schools of commerce, arts and manufactures, both day and evening. The Polytechnic School of Montreal provides a four years' course in the various branches of engineering and architecture. The Montreal Technical School gives a three years' course of study for boys above the age of fourteen. Its object is to provide youths who have left the elementary schools with the technical education necessary to become skilled mechanics and capable firemen or ships' superintendents. Evening classes in electricity, mechanics, automobile work, etc., for workmen and apprentices are also held. The Commercial and Technical High School, Montreal, offers to pupils who have completed their public-school course an opportunity to continue such studies as will secure them a good business preparation, or fit them to engage in any of the various occupations for which a previous training in manual work is desirable. The courses extend over four years, and English, French and mathematics are common to all. The Quebec Technical School gives three-year courses preparatory to the callings of pattern-maker, woodworker, machinist, fitter, lathe-hand, electrician, blacksmith and draughtsman to any youths above fourteen years of age who desire to follow an industrial career.

Ontario has several interesting technical institutions. The most famous is the Toronto Technical and Art School, which in size, equipment, and variety of work reminds one of the Manchester School of Technology, England, or the Technical High School at Charlottenburg, Prussia. Lack of space precludes a full description of this palatial institution. Suffice it to say that it has, in addition to the usual series of chemical and physical laboratories, an electroplating laboratory, a metallurgical laboratory, special laboratories for dynamo and motor testing, for steam and gas engine work, for mathematics and surveying, and for photography and photo-engraving. These laboratories are supplied with the most modern equipment for investigation, demonstration and testing (one of them has equipment valued at about $40,000). In connection with construction work, room is provided for the erection of two moderate-sized dwellings at one time. A pattern shop, a cabinet shop, a carpenter shop, a forge shop, machine shop, foundry, painting and decoration shops, printing shops, a plumbing and steam-fitting shop, brick-making and brick-laying shops, etc., are also to be found. Nor are the needs of women overlooked. There are four kitchens, a demonstration dining-room, a laundry, sewing and dressmaking rooms, millinery rooms, and a demonstration housekeeping apartment for teaching housekeeping along practical lines. The art rooms and modelling rooms are also features of the building. Thousands of students enter its portals every week to take one or more of the numerous courses provided. Although still in its infancy (three years), the school has done more to break down the slavish worship of traditional courses than any other single agency in the province.

Ontario has also the following technical and industrial day schools: the Brantford Industrial School; Haileybury, Mining Department of the High School; Hamilton Technical and Art School; London Industrial and Art School; Sault Ste. Marie, Technical Department of High School; and Sudbury, Mining

Department of High School; and many evening schools situated in urban centres throughout the province. The London Industrial and Art School has worked out an original plan whereby the boys will work and go to school in pairs during alternate weeks. This part-time plan has been arranged for boys over fourteen who cannot afford to stay longer at school; it is worked in co-operation with certain firms that employ skilled mechanics, and it is believed that by this means boys will be trained to become skilled and intelligent workmen.

Commercial education in Ontario must be obtained for the most part in private adventure schools or through correspondence courses. By the establishment of the Toronto High School of Commerce and Finance, in 1911, the authorities recognised their duty to provide a sound commercial education for those who desire it. The aim of the school "is to give an all-round high-school education, together with such training in business theory and practice that students, besides being generally well informed, will be able to adapt themselves to the needs of any business with which they may become identified."

Although the vocational education of the West is still largely directed towards agriculture, many excellent efforts at technical education are to be discovered. Through the efforts of the Provincial Director of Technical Education, Alberta has already made great strides. The chief feature of the work is the establishment of pre-vocational schools in Calgary and Edmonton. A temporary set-back in the work at Lethbridge was occasioned by the financial conditions obtaining after the outbreak of war.

Vocational education, perhaps, is at its best when combined in some practical way with industry. Hence schools for apprentices are usually very good. As an illustration of this type we may take the School for Apprentices at the Canadian Pacific Railway shops at Montreal. Here over 10,000 people are employed (seventy-five per cent. of them French-speaking) in building locomotives and railway cars. The numerous apprentices are not indentured, but they work under special agreement with the company for four or five years. Before entering the shops, the boy must pass an examination in Canadian geography, railway systems and arithmetic. The applicants take the examination in French or English, according to their nationality, but subsequently all instruction is given in English, since French is practically useless outside Quebec.

The apprentice begins with a preliminary or primary education, the object of which is to create in him a desire for advancement. The primary course includes reading and writing; elementary arithmetic; geography of the C.P.R. system; biographical sketches of past and present eminent Canadians; freehand drawing; punctuality and regularity; thoroughness; application and self-reliance; cleanliness and thrift; and recreation. The young employee, after he has received the above training, is put through courses of instruction in shop arithmetic, shop mechanics, shop practice and mechanical drawing, which enable him upon completion of his apprenticeship to qualify as a skilled mechanic. Then, further, he may take advantage of the advanced classes in mechanics, electricity, workshop practice, and locomotive and car construction. The courses are very successful. They are held during the company's time, and the apprentices are paid for attending them as if they were at work in the shops.

The Grand Trunk Railway has an apprentice system which includes special instruction, both theoretical and practical, in every branch of the engineering trades. Promotion depends upon success in the annual examinations in drawing and practical mechanics. A set of special text-books has been prepared to give the apprentices the theoretical side of the work.

The Canadian General Electric Company at Peterboro, the Canadian Westinghouse Company at Hamilton, the International Harvester Company at Hamilton and the Algoma Iron Works at Sault Ste. Marie have each of them adopted methods for giving apprentices theoretical as well as practical training during the apprenticeship period.

Although much is being done, much still remains to be done. Some of the most vexed problems in the training of industrial workers have hardly been touched. What method, for example, shall be adopted to secure the attendance of pupils at technical and industrial schools? Shall there be a revival of the apprenticeship system in a modified form? Shall the schools be day or evening? If day, shall the employers pay the young employees during the time they are at school? If evening, shall the hours of labour of adolescent workers be restricted to forty per week? How shall the cost of vocational education be met? From what sources shall the teachers be obtained? and what shall be the nature of their training? Shall the schools be vitally linked with local industries, or simply provide general courses of a theoretical nature? Shall the schools be restricted to adolescents and adult workers, or shall vocational courses be introduced into the elementary schools? Merely to state some of the problems is to secure the answer. Others, however, remain the subject of disagreement even among experts.

Whatever be the ultimate solutions of these problems, it is evident that no single one will suffice. There can be no single line of procedure, no single inflexible course of study, but the solutions will, perforce, have to be such as meet the differing needs of differing types of communities as well as those of differing types of industries. Rigidity and uniformity in organisation must give way to flexibility and variety.

As to the problem of compulsory attendance of adolescents, a necessary step in vocational education, Ontario has made some progress towards its solution. The Act respecting compulsory attendance of adolescents is subject to local option. But the important thing to note is that a beginning has been made. The people will gradually become educated up to the higher standards desired. Under the Act:

1. A board may pass by-laws requiring the attendance of adolescents (usually persons between fourteen and seventeen years of age but including others) in a city, town, or village under the jurisdiction of the board at day or evening classes to be established by the board or at some other classes or school in the municipality.
2. The by-laws may provide:
   (*a*) For the compulsory attendance of every adolescent not otherwise receiving a suitable education.
   (*b*) For the establishment of day and evening classes for adolescents.
   (*c*) For fixing the age, not exceeding seventeen years, for such compulsory attendance.
   (*d*) For providing courses of study and instructors approved by the minister of education.
   (*e*) For special classes for either sex, or for both, and for those engaged in particular trades or occupations designated in the by-law.
   (*f*) For fixing the seasons and number of hours in each day and in each week for the compulsory attendance required under the by-law.

The city of London, Ontario, put the Act into operation in January 1913.

With regard to the problem of procedure in the establishment of vocational schools, we cannot do better than give the findings, after exhaustive inquiry, of the Dominion Royal Commission on Industrial Training and Technical Education. The commissioners recommend:

1. That in smaller towns the provision at first should be in the nature of courses in industrial science, drawing and calculation, with opportunities for constructive work in wood, metals, textiles, foods or other materials appropriate to the larger industries of the neighbourhood. Out of such

courses would grow classes or courses specifically appropriate for the workers in the various industries.

2. That in the larger places it would be expedient to provide courses appropriate for the groups of fundamental industrial occupations such as the building trades, metal and machine trades, woodworking trades, electric trades, textile trades, clothing trades, boot and shoe trades, printing and lithographing trades, leather, glove and harness trades, paper making and art trades.

3. That when classes or courses for these grouped trades have been carried on, classes or courses for the particular trades could be evolved. For example, for the building trades there would be classes or courses for masons, bricklayers, carpenters, painters, etc. In like manner there would be developed for the metal and machine trades particular classes or courses for machinists, moulders, blacksmiths, etc. In a similar manner, out of the woodworking trades would come classes or courses for cabinet makers, furniture makers, pattern makers, wooden utensil and tool makers, etc. Out of the general school for the textile trades, special classes for spinners, weavers, lace makers and the makers of embroidery would be arranged.

4. That in every case a Local Development Board or other local authority should make, or cause to be made, a plotted survey of the needs of the population by numbers, ages and occupations, and another plotted survey of the provision (if any) which exists in buildings, equipment and teaching force suitable and available for use. When the one plotted survey is placed over the other, the situation can be studied with the greatest advantage to all interests. In this connection consideration should be given to what was done at Leeds and Edinburgh.

5. That the training of teachers and executive workers for service in industrial and technical schools should be advanced as soon as practicable.

6. That classes for foremen and workmen who are both intelligent and highly skilled should be undertaken for the first object of giving such men greater qualifications for their own occupations. Such classes would primarily be for the benefit of those who attended them. Out of those who attended doubtless a number would be revealed who would have some natural aptitude for teaching, and who during the following years would be disposed to teach in the continuation classes, and to teach to some extent after the method by which they themselves had been instructed. To begin these classes it would be necessary to secure the services of a few highly efficient teachers who had had successful experience in such work.

7. That inducements should be offered to professional teachers, who already had a knowledge of and a taste for industrial and technical work, to spend some time in practical work in workshops or factories similar to those of the place in which they would afterwards teach.

8. That by a combination of these two methods, in a short time it would be possible to secure a local supply of men competent to conduct continuation classes and the trade classes in day technical institutes. Men with more systematic and thorough training would be required for the higher places in technical institutes and middle technical schools.

VII. MISCELLANY AND CONCLUSION

Education of Defectives.—Defective persons may be conveniently classified into three groups—mental, moral and physical defectives. A moral defective may also be mentally defective, and physical defectives of the deaf and blind types have a far greater percentage of mental defect among them than exists in the ordinary population.

So far as can be judged from the inadequate statistics at our disposal, blindness is on the decrease in Canada, deafness is relatively stationary, and mental defectiveness and insanity are on the increase. This is what an empirical knowledge would lead us to conclude. The greater attention paid to the eyes at birth naturally leads to a decrease in preventable blindness. Deafness is largely inherited, and the deaf tend to marry the deaf. Mental defectives, especially the type known as the feeble-minded, receive recruits from two sources—from the large natural increase of the hereditary mentally defective, and from immigration. Immigration laws are laxly administered, the officers receiving appointments mainly on the ground of political services rendered to party. Canada has too long been the dumping ground for misfits and defectives from Great Britain. Stricter medical and psychological examination of immigrants is urgently needed, not only at the port of entry but at the port of embarkation as well.

The blind and the deaf are well cared for. The schools for the deaf at Belleville, Ontario, and Winnipeg, Manitoba, and the school for the blind at Brantford, Ontario, compare favourably with those found elsewhere. These schools have a vocational bias, the object being to make the pupils as normal and as nearly economically independent as their defects will permit. The work of pupils in vocal and instrumental music at the Brantford School for the Blind is most praiseworthy. The possibilities of industrial training are far from being exhausted at any of the institutions, and there is, perhaps, still too much of the traditional bookish element in the curricula.

The education of the physical defective is still in its infancy. Forest schools for the debilitated are successfully carried on in Toronto. There are now sufficient cripples of school age, aftermaths of epidemics of infantile paralysis, to warrant a special school for them.

But little has been done for the feeble-minded. Institutions for idiots and imbeciles, and for dements, have long been established. Only recently, through the work of Dr. Clarke and Dr. Hincks at the Psychiatric Clinic at Toronto, has the terrible menace of feeble-mindedness in Canada been realised. Dr. Hincks, from preliminary investigations of the school children of Toronto, concludes that about three per cent. should be classified as feeble-minded, making over 2000 for the city (70,000 school population).

There is reason to believe that percentages elsewhere are not very different from those of Toronto. The close connection between crime and venereal diseases and feeble-mindedness having now been established, it remains for the various communities of Canada to act upon the knowledge.

Ontario has an excellent law respecting auxiliary classes, as they are called, upon her statute books; she now awaits persons with the necessary force of character and aggressiveness to see that the law is put into effective operation.

The Ontario Auxiliary Classes Act, 1914, empowers a board to " establish and conduct classes for children who, not being persons whose mental capacity is incapable of development beyond that of a child of normal mentality at eight years of age, are from any physical or mental cause unable to take proper advantage of the ordinary public or separate school courses." The act excludes the low grades of mentally defectives, but is wide enough to include the blind and semi-blind, the deaf and semi-deaf, the crippled, the debilitated, those predisposed to tuberculosis, etc. The weaknesses of the act are its permissive character, and that the control of the persons coming under it is relinquished at twenty-one years of age. It is certain that the purity campaign now being waged from coast to coast will, as an important side issue, affect the laws regarding the feeble-minded.

Education in Art.—Canada has developed a distinct school of painters. The rugged beauty of the country and its fine colouring seem to demand a broad, vigorous treatment on canvas. If the results shock those who are familiar with gentler and more finished methods, it must nevertheless be acknowledged that here, in one field at least, Canadians have found themselves. Other fields of art are being affected, but one cannot be positive as yet that schools have been established in them. Although it is not true to say that the art schools have created this renaissance, they at least have not fought against it as in other countries; they have, as a matter of fact, made positive contributions in it.

The Ontario College of Art may be taken as a good example of a Canadian art school. It aims to train students in the fine arts, including drawing, painting, designing, modelling and sculpture, and in all branches of the applied arts in the more artistic trades and manufactures. It also serves as a training institution for teachers of art. The courses of instruction are in three divisions: (1) the fine arts course, which trains professional painters, illustrators and sculptors; (2) the applied arts course, which leads to the various branches of pictorial and industrial design in practical relationship with crafts and manufactures; (3) the teachers' course, designed to train teachers in the appreciation and technique of the fine arts. A diploma of associateship can only be obtained after a full four years' course, but shorter courses of one to two years are also arranged. The outdoor school for the study of landscape, animal and figure painting, conducted at selected places each year, is a valuable feature of the institution. The annual exhibition of pupils' work shows that high standards of achievement are expected of the students. The new art movement in Canada seems to the writer one of the healthiest features in her whole system of education.

Education of the Indian.—The Indians have had a " squarer deal " in Canada than elsewhere. By section 5 of the British North America Act, 1867, the Indians of Canada came under the control of the Dominion Government, and in 1873 the Minister of the Interior was made Superintendent-General of Indian Affairs, and given control and management of the Indian lands and properties. In 1916 the Indian population was 105,561, and it had practically remained stationary for a decade. The majority are engaged in hunting, trapping and fishing, but crops to the value of $1,813,619 were raised in 1914. Educational advantages are provided for the Indians in day, boarding and industrial schools, and for the year 1915-16 appropriations amounting to $984,115 were made. Several bands of Indians also assist, and during 1914-15 the sum of $23,019 was available from this source. There were 11,714 Indian children in school during 1914, and the average attendance was 7218, or 61.62 per cent. Nearly 18,000 Indians can write either English or French; 38,202 can speak English, and 8466 French. The total parliamentary appropriation for the year 1915-16 was $2,039,638. On March 31, 1915, the Indians had to their credit in trust funds the sum of $7,738,146, derived from sales of land and timber and from rentals of grazing and other lands. These figures show how carefully the educational and economic interests of the Indian are conserved. Canada has little to reproach herself about, so far as her treatment of this " child race " is concerned.

Rhodes Scholarships.—Each Rhodes Scholarship is worth $1500 per annum. The election of scholars in Canada takes place each year during January. Candidates must be British subjects, unmarried, and between nineteen and twenty-four years of age inclusive. In scholarship they must have reached the equivalent standard of the Oxford Responsions examination, including Greek, and in athletics a satisfactory record must be produced. Although candidates may elect whether they will apply for the scholarship of the province in which they have acquired any considerable part of their educational qualifications, or for that of the province in which they have their ordinary private domicile, home, or residence, they are debarred from competing in more than one province, either in the same or in successive years. The scholarships have served to cement the bonds of friendship between Canada and the Mother Country, and have secured for a growing number of Canadians educational and social opportunities which it would be difficult to provide in any other way.

Hands Across the Sea Movement.—The department of education in Manitoba has instituted a system of foreign travel for teachers. It enables them at comparatively small expense to visit foreign lands. Up to the outbreak of the war, 394 teachers had taken advantage of the opportunities afforded, and had visited England, Scotland, Ireland, France, Italy, Malta and Egypt. It is a movement worthy of emulation by other provincial departments, for foreign travel is a broadening educative agent, the importance of which it is difficult to exaggerate.

Conclusion and Forecast.—Enough has been written, perhaps, to show the reader that education is a subject of vital importance to Canadians. Wherever a settlement is established, a school springs up. It may not be a very good school in the first instance, but it steadily improves. Pioneering difficulties confront educational organisation in many parts of Canada. As these are best overcome by a central organisation, centralisation becomes the rule. This central control is at once the great strength and the great weakness of Canadian education. It is its great strength because it enables the forces of educational organisation to be massed rapidly, and directed against remote or recalcitrant points. It is its great weakness because it makes for rigidity and uniformity long after the country has become settled and in need of variety, not only in types of schools, but in courses within each type of school. Canada has reached the cross-roads. She must either agree to a large devolution of authority, or must stagnate in a worthless efficiency. The history of school systems shows that the people must be trusted, or their interest in education flags. Even if the immediate and obvious efficiency is not so great—and truth to tell, devolved authority is never so patently efficient as one which is centred in a few expert hands—yet because education is a spiritual process of growth, decentralisation must take place or else the interest of the people will die. Education is not limited to helping people to earn a living; it aims to help them to live, and nobody can *live* according to a set of rules and regulations.

Canada, therefore, will move in the direction of greater local control. For this purpose the local area of education will become enlarged, with interests big enough to employ the best minds in running it. Contemporaneously, a different kind of central control will be established. We have seen that the federal government exercises practically no control over education. Yet tentative beginnings have been made in the matter of federal subsidies for education. The agricultural instruction bounties are a case in point. This policy will undoubtedly be extended to vocational education, to the education of the foreign immigrant and such-like fields of endeavour. It is impossible to conceive that huge grants will be continued unless some sort of control over their expenditure is acquired. At present it is practically impossible for the Federal Government to get balance sheets from some of the provinces which show in any clear way just how the grants have been expended. Dominion powers over education will therefore increase.

There is a growing restlessness over secondary education. Reforms in this field are overdue. The secondary school must commence not later than twelve; it must be as free as the elementary school; it must offer a greater variety of courses; it must offer fewer subjects at a time.

In the elementary school less emphasis will be laid upon the tools of learning, and more on the content. The three R's will decrease in importance. Literature, history, arts and crafts will increase in importance. The elementary school will seek to ally itself with the native interests of the young; it will tend to become more of a place for doing things to things, rather than memorising facts about them. It is sure to become a more joyous and healthier place.

Perhaps in the light of the foregoing account some of these forecasts may seem to be Utopian, and their realisation far distant. Maybe they are. But the war is rousing the community as it has never been roused before. A better perspective on life and education is being secured. And out of this wider knowledge and deeper thinking progress is sure to result. "The twentieth century is Canada's." May she be worthy of it!

VIII. BIBLIOGRAPHY

The student of Canadian education must, perforce, depend for information upon the numerous official publications of the nine provincial education departments. In the preparation of this section the writer has freely used their annual reports, bulletins, circulars, school laws and regulations, etc. Of the more important standard works on Canada and Canadian education a brief list is given below:

Board of Education, England, *Special Reports on Educational Subjects*, No. 4, London, Wyman & Sons, 1901.

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Canada Year Book, The. Editor, Ernest H. Godfrey. Published by authority of the Minister of Trade and Commerce. Ottawa, King's Printer, Annual.

A reliable official publication dealing with many aspects of Canadian life. The 1914 volume contains a comprehensive account of education in Canada by provinces. All the volumes contain official statistics. Invaluable.

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Covers much the same ground as the Robertson Royal Commission. An earlier report; discusses Ontario's problem at great length.

Shortt, A., and Doughty, A. G., editors, *Canada and its Provinces.* 22 vols. and index. Toronto, Glasgow, Brook & Co., 1914.

The articles written by Dean Wm. Pakenham are especially valuable.

Sissons, C. B., *Bilingual Schools in Canada*, Toronto, J. M. Dent & Sons, 1917.

The authoritative account of one of Canada's most difficult educational problems.

CHAPTER VI

EDUCATION IN DENMARK

I. INTRODUCTION

DENMARK is a compelling example of the essential interrelation of education and national welfare. Endowed by nature with comparatively little agricultural wealth, set back seriously by modern wars, Denmark is now producing immense crops and making herself felt in the markets of the world because of the application of broad, general intelligence stimulated and directed by a system of schools consciously directed to the upbuilding of industrial resources.

Directly or indirectly as a result of her schools Denmark has solved the problem of co-operative enterprise; reclaimed hundreds of miles of sand dunes and heather regions; stopped the cityward tide of the rural population; and built up a rural social life wherein many of the social problems confronting rural communities in other lands have been cleared away.

The most notable contribution by Denmark to modern education is the *folk high school.* It is difficult to convey to the reader all that the folk high schools are and do. The work is of the spirit more than of matter. It is felt and experienced rather than seen. The folk high school is, in reality, not a high school in the usual sense, but a continuation institution where young men and young women between eighteen and twenty-five years of age may continue their education after a break of several years from the end of the elementary period.

Denmark's contribution to international education, however, is not confined to the folk high school. Rural elementary schools, local agricultural schools, rural schools of household economics, and special schools for smallholders, help to complete a system of rural education in which the civic and vocational aims of a rural-minded people are kept uppermost.

II. HISTORICAL DEVELOPMENT

Old Norse Education.—Runic inscriptions bear evidence of the culture of the old Norse world extending as far back as A.D. 500.[1]

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[1] See *Bulletin of the U.S. Bureau of Education*, 1915, No. 45; *The Danish People's High School*, by Martin Hegland, p. 7.

The folk songs and saga literature of this early period tell of the child's early training at the hands of his mother. Children were given large freedom in play and activity and their initiative allowed to develop. When the boy was old enough to leave the immediate care of his mother, his training was continued in the home or given over to a foster-father. Many parents, especially of the well-to-do classes, chose the latter course. The foster-father was selected from among the wisest men of the community, usually from among the district rulers, who were also priests and were, therefore, initiated in the civil laws as well as religious teachings of the community. The relation between foster-father and child was intimate and loving.

The aim of old Norse education may be said to have been manliness—"physical and intellectual vigour, courage, complete self-possession in the most critical situation, large-mindedness, generosity, and above all utter disregard of death."[1]

The education of girls, according to the same authority, seems to have been less specialised. At an early age they engaged in the industries of the home—sewing, embroidery, spinning, and weaving. They participated in various amusements and mingled freely with the people at festivals and public meetings. Their intellectual training was not entirely neglected, however, for women busied themselves also with poetry. But chiefly by work, play, and free activity were trained the mothers of a sturdy race.

The Middle Ages.—During the medieval period there were in Denmark, as elsewhere in Europe, three chief types of schools—monastic, cathedral, and burgher schools. The studies pursued in the monastic schools were religion, reading, writing, singing, and the subjects of the trivium and quadrivium. The cathedral schools were largely training schools for the priesthood. The schools established by the citizens, and hence called burgher, Danish, German, or writing schools, were established in all the leading commercial towns probably before the Reformation. They taught, in addition to religion, reading, writing, arithmetic, a little history, geography, and sometimes German. Elementary public schools in the modern sense did not exist, but provision was made for instruction by the parish priests in the elements of the Christian religion.

Under the Reformation (1536) the monasteries were dissolved and their properties and income were devoted to the support of Latin schools and the university. The cathedral schools were transformed into Latin schools and served as training schools for the ministry until 1629. The church ordinance of 1539 required that there should be one such Latin school in every provincial city. Later schools were established by the king to equip pupils for secular as well as for clerical life. Ultimately there developed two fairly definite types of Latin schools—higher schools in the larger cities and lower schools in the smaller towns. The higher schools became training institutions for the office-holding class, and were in charge of a headmaster or rector. The curriculum consisted of religion, Latin, and a little Greek, Danish being prohibited.

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[1] Hegland, p. 8.

Later Development of Elementary Education.—Following the Reformation period education became more widespread and there were soon whole communities, especially in Jutland, where every person could read. Apparently most of the schools were formed as a co-operative effort on the part of several families. King Christian IV. (1588-1648) publicly praised these schools and urged more thorough training of ministers and the appointment of capable parish clerks, whose chief function he considered to be the instruction of the young.[1] Further educational advance was made under Christian V. (1683), when a law was passed the effect of which was to raise the qualifications of parish clerks. The pietistic movement stimulated a marked revival of interest in education. In Copenhagen free schools were established for the poor in two parishes early in the eighteenth century, these schools being supported by free-will contributions. Instruction was given in religion, Danish, writing, and arithmetic, the girls receiving instruction in sewing and spinning. These schools were the foundation for the present public-school system of Copenhagen. Free schools for the poor were also established in other cities at this period.

King Frederick IV. (1699-1730) built 240 schools, many of which are still in existence. He took a direct interest in the work of education, not only aiding in the building of schoolhouses, but issuing specific instructions regarding the work of the schools. Dr. Hegland says, describing these schools:

> Teachers were to be nominated and certificated by the local pastors and appointed by the county chairman. The schools, which were for both boys and girls, whether rich or poor, were to be kept six days in the week, and parents punished if they did not send their children. Instruction in the most elementary subjects was free, but tuition might be charged for instruction in special or advanced subjects. In

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[1] Hegland, p. 12.

general the teachers' cash salaries were paid by the king, and the salaries in kind by the local communities, a certain levy being made on each unit of land.

Frederick IV.'s efforts in behalf of education were continued by his son, Christian VI. (1730–46), who exacted examination in a definite body of knowledge before the institution of confirmation at fourteen or fifteen years of age. Christian VI. extended his father's idea and conceived a national system of education. During his reign a commission was appointed to consider the status of education in the country and to prepare for the establishment of a national school system. The direct result of the report of this commission was the "Ordinance of 1769 concerning the schools in rural districts," which laid down the following principles: (1) Every parish is in duty bound to establish and maintain schools. (2) Children are in duty bound to receive instruction during a certain period of their lives. If this is not otherwise provided for, they are to be instructed in the public schools. (3) The school is confessional, *i.e.*, an Evangelical Lutheran parish school. While immediately after the death of Christian VI. the attitude of the central government towards education became less vigorous and the provisions of the law were not carried out in full, the principle that education is a function, not only of the home and church, but also of the state, remained firmly established.

Teacher training schools under the influence of modern thought date from 1781, when a school was established at Kiel, then in Denmark. Christian VII. appointed the "Great School Commission" in 1789 and under its supervision the Blaagaard Normal School was established in Copenhagen in 1791. The instruction embraced the theoretical and practical teachings of the Christian religion, with proofs from the Scriptures and reason, Bible study, catechisation, history, geography, mother-tongue, nature study, physics, logic, laws and ordinances, writing, arithmetic, geometry, German, music. Later were added anthropology, agriculture, horticulture, household sciences, industries, and gymnastics.[1] The plan of the great commission was enacted into law in 1814. The law made possible the enforcement of compulsory education, placed the burden of support upon the local communities, fixed the salaries of teachers, and provided for a small pension. The subjects of instruction were to be religion, writing, reading, arithmetic, singing, gymnastics for boys, and where possible some history and geography. The enforcement of the law was rendered difficult by the poor economic conditions of Denmark during the early part of the nineteenth century and instruction was poor.

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[1] Quoted by Hertzberg, *op. cit.* p. 108.

The Modern Period.—Educational conditions improved materially after 1830. Professionalism began to make itself felt among the teachers who formed associations and founded educational journals; and Bishop Grundtvig and Kristen Kold made contributions to Danish educational thought and practice that have had profound influence. The school law of 1856 raised salaries, placed the right to nominate teachers with the local communities, and required the state to pay part of the expense of maintaining public schools. Local control was increased in the 'sixties and reforms continued to be made in the professional status of teachers. The laws of 1899, 1903, and 1904 have brought elementary education to its present status.

Secondary Education.—The influence that was gradually improving the elementary schools during the nineteenth century also acted effectively in secondary education. In the early part of the nineteenth century salaries of secondary teachers were increased; modern languages, including the mother tongue, were assigned a place in the curriculum, and science likewise found a place. By 1871 the Latin school had been divided into the linguistic-historical and the mathematical-scientific, both groups preparing for the university. By 1881 there had been worked out a *real school* of four years, preparing for practical life. This real school was replaced by the new system introduced by the law of 1903, which gave a larger place to modern languages and literature. The same law unified the school system, making both the elementary and secondary schools part of the same public-school system. The latter half of the nineteenth century likewise saw the development of schools for women. Girls were admitted to the teachers' examination in 1860 and to the preliminary real examination in 1882. Co-education was introduced into state schools in 1903.

III. THE SYSTEM OF EDUCATION

The state educational system of Denmark comprises primary, secondary, and university education. The plan provides that all children shall receive the same education during the first five years of their school life. Children who are to receive secondary education enter the *middle school* and those whose plans do not include secondary education continue for two or three years more in the elementary school, usually until confirmation, at fourteen or fifteen years of age. Secondary education normally begins when a child is eleven years of age or at the end of the fifth year of school work. It includes the middle school of four years. Children who wish to continue further may take the one-year real course, or enter the three-year *gymnasium*, which offers classical, modern language, and mathematical-scientific courses. It should be noted that the folk high schools, which are Denmark's special contribution to education, are not part of the plan of secondary education, but are in the nature of continuation schools. Children who have left school at fourteen and have gone to work return to the folk high school at eighteen or nineteen. The gymnasium prepares for the university. The plan is shown graphically on the opposite page.

Administration.—Education in Denmark is essentially a state affair. The king participates to a small extent in the administration of the schools, appointing head-teachers and principals on the recommendation of the ministry. The direct administration of education is in the hands of the *Ministry of Ecclesiastical Affairs and Public Instruction*. The minister has a seat in the cabinet. It is the function of the ministry to issue all announcements, circulars, regulations, and instructions, and to act as a court of last resort in all the more important matters pertaining to education. There are two departments in the ministry. The first controls all matters pertaining to elementary education, normal schools, the state teachers' college, folk high schools, school of domestic science, school libraries, stipends for foreign study, Danish school museums, orphan homes, and schools for defectives. The other department has to do chiefly with "secondary and higher schools, the university, polytechnical institute, schools of pharmacy and dentistry, the Royal Archives, Royal Library, Royal Theatre, Royal Academy of Fine Arts, scientific and fine arts collections, grants to science and arts, and stipends to students at the university and abroad." [1]

The complete plan of administration, state and local, is given in the table on page 447. Educational control, aside from that exerted by the state government, is lodged in the hands of county school boards, the county school council, the district school board, the local civil council, and the school commission.

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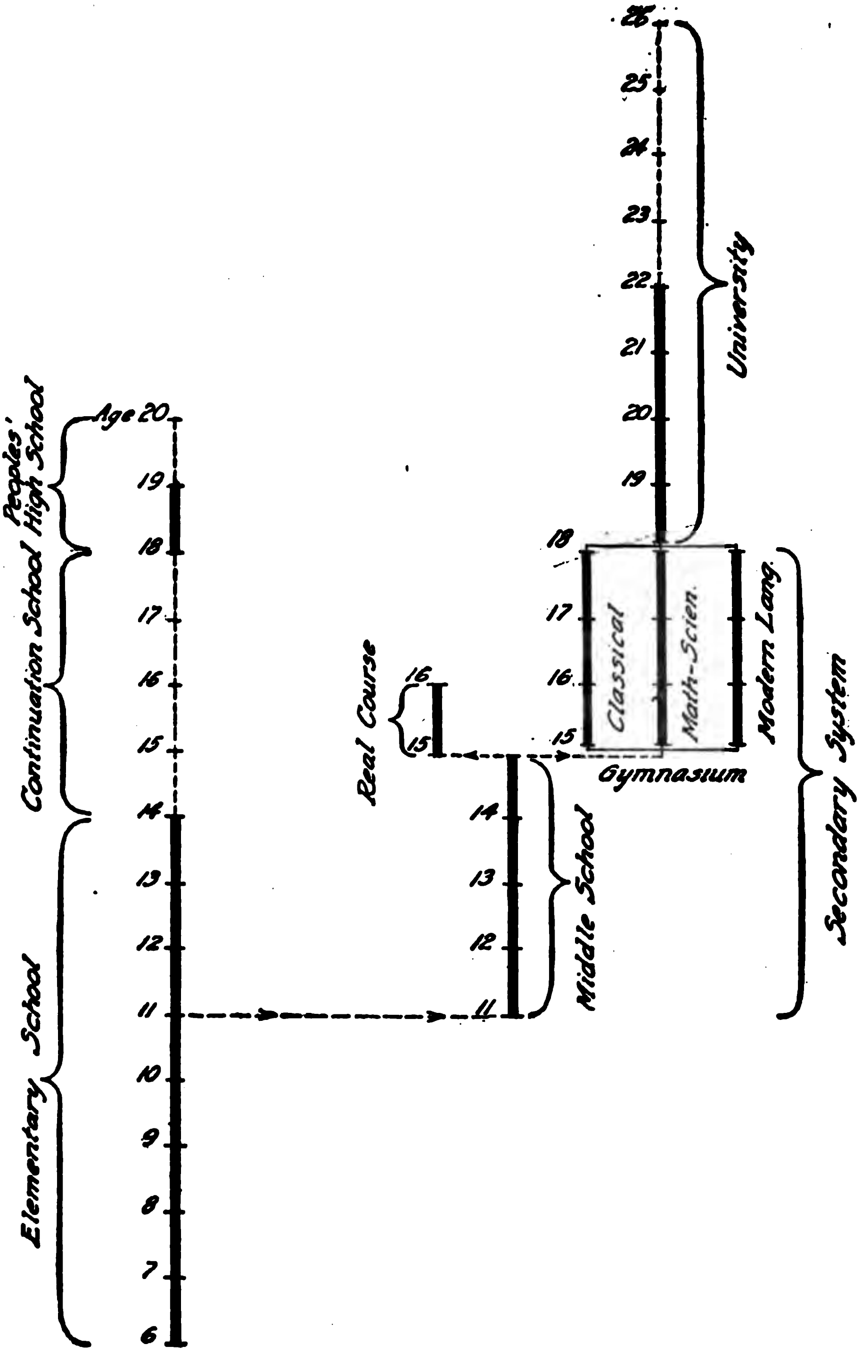
[1] *Hof-og Stats Kalender*, 1912.



Graphical representation of the Danish school system

The *county school board* is made up of the members of the district school boards of the county. In conjunction with the county school council it administers the county school fund, meeting at least once a year to prepare the school budget for the coming fiscal year.

The *county school council* is made up of the members of the county civil council, together with additional members elected by the provincial cities within the county, the number of elective members bearing the same relation to the number of members in the county civil council as the population of the city bears to the rural population of the county. Besides helping to fix the school budget for the year, it administers the capital of the school fund. Requests from school districts for building loans are submitted to the ministry through the county school council. "It keeps a list of teachers employed in the county, with their periods of service, fixes widows' pensions, and by the consent of the ministry may appropriate financial aid to certain teachers and widows who are not entitled to pension."

There is a *district school board* for each of the seventy-three ecclesiastical divisions of the country. This board is composed of the county chairman, the dean (the ecclesiastical divisions being known as deaneries), and a third member elected by the county school council. The dean inspects the schools personally and makes reports to the ministry.

The finances of the local schools are administered by the *local civil council*. This council has charge of the erection and maintenance of school buildings, enforces compulsory attendance laws, and also nominates teachers with the advice of the school commission. The direct supervision of schools and of the teachers is entrusted to a *local school commission* composed of the pastor and two members elected for three years by the local civil council.[1] In rural districts the pastor is chairman of the school commission; in cities the chairman is elected. The commission not only has authority over public schools and teachers, but also over private schools as well. The commission makes recommendations to the local civil council or to the district school board as to choice of textbooks and school materials. It is the duty of the commission to see that the attendance laws are enforced, that pupils are vaccinated, and that children suffering from contagious diseases are placed under medical control.

In both city and rural districts the teachers are allowed

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[1] Somewhat different in cities. (See table on opposite page.)

Ecclesiastical and Civil Divisions, and Educational Boards in Denmark

Ecclesiastical divisions.			Civil divisions.				Educational boards.	
Names.	Number.	Administrative head.	Name.	Number.	Governing board.	Administrative head.	Name.	How constituted.
Bishopric	7	Bishop	County (*Amt*)	18	County civil council	County chairman	1 County school board	Made up of district school boards in county.
							2 County school council	Made up of county civil council, plus certain members elected by cities.
Deanery (*Provsti*)	73	Dean (*Provst*)	Township (*Herred*)	73		Bailiff (*Foged*)	3 District school board	Made up of county chairman, dean, and a third member elected by county school council, usually for three years.
Parish (*Sogn*)	1,000	Pastor	Commune: Rural	1,220	Rural civil council	Chairman	School commission	Made up of pastor, plus two members elected for three years by rural civil council.
			Commune: City	75	City civil council	Mayor	School commission	Made up of pastor or pastors, plus twice as many members, elected for three years, by city council.

considerable participation in administration. In cities there is a *teachers' council* in each school, the head-teacher or principal being chairman. There is no corresponding council in rural districts, but the teachers are expected to render collective opinions on school matters at certain times. The teacher's councils consider the question of instruction, the course of study, daily programme, promotions, materials, the school library, departmental or class-teacher systems.[1] The head-teacher or principal of the school has general supervision over all activities of the school, but is not considered an authority over the teachers, except in cities where the commission ordinarily delegates its power to the principal. He supervises the conduct of the pupils, oversees the care of buildings, assigns classes, and prepares the required reports. He also submits recommendations to the commission with regard to examinations, transfers, and sometimes the school budget. The larger cities have school superintendents. In Copenhagen the superintendent is assisted by two vice-superintendents, one of whom inspects secondary and private schools and the other public elementary schools.

Maintenance of Elementary Schools.—The Danish system of taxation for school purposes is based on the principle that the entire nation is vitally interested in the education of every individual in the kingdom. Education is both a national and local concern; therefore, both nation and local community must bear their proportionate shares of the cost. As the result of a hundred years of careful effort, the system is now fairly well balanced. The state for its part pays sufficient to equalise educational advantages throughout the nation, and the smaller units enough to keep alive and foster local interest in school affairs and to develop the greatest measure of local independence and self-reliance. The maintenance of the rural school may advantageously be discussed under three heads: (1) state aid; (2) permanent funds; and (3) local taxation.

State Aid in School Maintenance.—The general government extends financial assistance in a number of ways to induce greater educational effort and efficiency. The aid comes to the community as reward for good work already begun—work sometimes voluntarily undertaken, sometimes under the compulsion of legal enactment.

According to the Ordinance of 1908, the state extends annual aid to districts which have bonded themselves for the construction of new buildings, including gymnasiums and teachers' homes, or which have remodelled old buildings, in compliance with law. This aid in no case exceeds 450 kroner annually, and must only be used in paying interest on, and reducing the amount of, the indebtedness.

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[1] As reported in Hegland, p. 27.

The largest state aid is for teachers' salaries. As stated elsewhere, the general government obligates itself to pay all the increases in teachers' salaries above the initial salary paid by the communes.

Furthermore, one-half of the entire amount paid for old-age pensions comes from the general treasury. The balance comes from the permanent *amt* (county) fund.

Considerable sums are also used in the purchase and maintenance of school libraries and teachers' libraries. The evening schools, too, of which many hundred are in operation in rural communities, are maintained through government aid.

Finally, the state extends direct aid to needy communes, and even refunds one-half of the total amount that the permanent *amt* fund may annually use for needy communes within the *amt*. Just what percentage of the total amount of school maintenance is defrayed by the state is difficult to say, as there are no statistics available, but it is very considerable.

Permanent School Funds.—As early as 1814 a permanent fund was organised, the chief aim of which was to extend aid to needy teachers. These funds came through direct *amt* taxes, from assessments on the teachers, and in large part from the sale of certain school buildings and school lands which were no longer needed in the reorganised school system. In 1856 the teachers' aid feature was abolished and teachers were no longer expected to pay their quota to the fund, the purpose being to aid and promote education within the *amt*. The invested moneys now have their source in the sale of certain school "lots," fines, and direct appropriations by the *amt* council. The fund is administered by the *amt* school directory in conjunction with the *amt* school council, which draws its membership from the regularly constituted *amt* council. This gives assurance of able administration of the funds.

The general purpose of the permanent *amt* fund is to equalise educational opportunities within the *amt* by tendering aid to the several communes according to need. In addition, all state aid is paid directly into this fund, and from it to the several school districts.

One-half the amount of the old-age pensions within the *amts* is defrayed from the permanent fund. The pay for certain provisional teachers not otherwise provided for is likewise drawn from this source. In addition to all this, the fund may aid in maintaining schools in household economics and evening schools, if there are sufficient funds on hand.

Local Taxation.—The chief source of school maintenance is from local taxation. The commune with its several school districts is the basis. This would be a rather small tax unit, and scarcely to be trusted with such important legislation, were it not that the communal council and school commission are guided very closely by the Deanery School Directory and Ministry of Education. As a matter of fact, national and *amt* aid depend almost solely upon the wisdom shown in voting and expending local funds. Any attempt at unwise expenditure would immediately be checked by higher authority, just as wise and liberal expenditure receives its encouragement and reward in the form of state aid.

The commune is obligated with the general maintenance of the local schools, such as erecting the necessary buildings and keeping them in repair, providing all necessary school furniture, and paying the original salaries of permanent teachers and regular assistant teachers.

IV. RURAL EDUCATION AND RURAL LIFE

It is clear from the foregoing description of the educational system in Denmark that something other than organisation is responsible for the remarkable upbuilding of rural life that has come. A more significant explanation of the effectiveness of Danish rural education is to be found in the effective enforcement of the compulsory education law in rural districts as well as in cities. In this respect there is no distinction between urban and rural communities. Of all the children of school age in 1910 only 370 or one-tenth of one per cent. failed to attend school during the year.

The following table indicates for 1911 the situation in rural schools:

		In rural schools only, 1910.
Children of school age accredited to the following schools	Public schools	239,356
	Other schools	19,101
	Instructed at home (tutors, etc.)	2,020
	Not stated	589
	Abnormal, sick, etc.	452
	Total	261,518

In rural schools only, 1910.

Children actually enrolled in the schools	Public schools	242,291
	Private schools, etc.	18,405
	Abnormal, sick, etc.	452
	Of school age not in school	370
	Total	261,518
Number of schools	Public schools	3,225
	Private and other schools	443
	Total	3,668
Teachers in public schools	Men	3,820
	Women	1,523
	Total	5,343

Another factor which makes education in rural Denmark different from education in rural districts of other countries is the establishment on a firm basis of continuation schools for rural boys and girls. Although these are private schools they are in effect free schools, since the government gives liberal aid and even subsidises worthy students. Night schools were maintained (1911) in 1150 rural communities for pupils who have completed the elementary schools, but cannot afford to attend the regular farmers' continuation schools—the folk high schools, local agricultural schools, and schools of household economics.

Rural children who may desire an education other than for farm life usually enter the middle schools of the incorporated towns immediately upon completing the elementary course. There they may continue their study through the *gymnasia* or *real schools* to the national university or the national polytechnic institute. Or they may earlier branch off into the various technical schools, trade schools, schools of navigation, and schools of similar nature.

To say that the rural schools of Denmark, unaided by other forces, are solely responsible for the great measure of agricultural prosperity might, perhaps, be difficult to substantiate. Necessity had a great deal to do with the beginnings of the movement. Patriotic men rose up and organised the forces at their disposal as best they could; but without the broad general intelligence furnished through the remarkable system of new rural schools the peasantry would have been in no condition to receive and profit by the progressive propaganda of their leaders.

These schools are, indeed, organised as a part of the movement and stand, therefore, in the relation both of cause and effect;

for, while brought into being or, at least, revitalised and perfected through the same necessity which made patriotic men and women come to the rescue of the fatherland, the schools alone could bring the system to full fruition by making education available for every man, woman, and child in rural districts. The schools that brought all this to pass may be classified as rural elementary schools, folk high schools, local agricultural schools, rural schools of household economics, and special schools for smallholders.

The rural elementary schools of Denmark emphasise to a remarkable degree the fundamental school subjects and do the work in them in a most thoroughgoing fashion; but at the same time they have seen the way clear to root the entire course of study to the soil in such a way that they are able to inculcate in the pupils love of soil tilling as a life calling.

The Free Elementary Schools.—The scheme of education for farm life begins with the free elementary schools, and is, thereafter, continued part of the time in the classroom and part of the time in practical outside work until all has been mastered that is essential to success in agriculture. The elementary schools are compulsory from the age of seven to fourteen, although many children enter school at six. The compulsory attendance laws are enforced under such rigid regulations that practically no children of school age evade them. The schools are taught by mature, professional teachers who devote their lives to work in the country. The uniform thoroughness which marks the elementary rural schools is clearly explainable in well-trained teachers of long tenure in the same community. These teachers are well paid and content with their lot; they rank high socially and in most instances make use of their opportunities to become community leaders and organisers. Under such teachers—a large majority of them are men—the children complete the first seven or eight grades of school work, in which great emphasis is laid on the mother-tongue, mathematics, and other essential subjects, together with religious instruction, nature study, music, and gymnastics.

As a rule the Danish people are so imbued with the value of education that they will make any sacrifice to keep their children in school. The few who persist in avoiding their legal responsibilities are punished so severely that they are, as a rule, glad enough to change their ways.

The head-teacher in every rural school is charged with the task of keeping a complete record of all the children of school age within the district. This otherwise arduous duty is simplified by a requirement of law that parents and guardians must give notice to the parish council one week before they intend to withdraw their children from school when moving away from the parish. The same kind of notice must be given the authorities of the parish to which the family moves, in order that the children may be properly recorded and no time lost. Children are kept on the records of the school from which they have moved until the teacher is notified, in writing, by the teacher in the new parish that these children are re-enrolled in school. This method of tracing children has had excellent results.

The teacher must investigate all cases of absence from school and decide whether they were "without legal reason." Once a month such cases are reported to the parish council, who may make further investigation as to the justness of the charges. They shall thereupon proceed to fine the parents or guardians of the delinquents, unless the former are able to show that the children in question are habitual truants—in which case the children themselves are taken in hand by the council. The fines appear small, but are heavy enough for the classes in Denmark most likely to err in school matters. Twelve öre [1] must be paid for each day's absence during a first month of offence, twenty-five öre for each day during a second month, fifty öre for each day during a third month, and one krone for each day of a fourth month—and this with the further provision that there shall be an added fine of twenty-five öre for each absence above four each month, provided that in no case shall the fine exceed one krone per day. If necessary the parish council have recourse to the processes of law to collect these fines. And the important fact is that the fines are collected.

Length of School Year.—According to the Ordinance of 1904, "instruction shall be given in town and country schools during at least forty-one weeks." As a Danish school week covers six days, this gives a minimum school year of 246 days. But the law is not interpreted to mean that all the children or all the classes must be in attendance all the time during these 246 days. Actual attendance becomes a matter of a specific number of sixty-minute periods spent in school weekly. On this point the law states that in the larger towns the average minimum amount of instruction for each class shall be twenty-one hours and in rural districts eighteen hours weekly. This does not, however, include gymnastics, sloyd, handwork, drawing, or household economics, which would increase the number of hours very materially.

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[1] An öre is one-hundredth of a krone; a krone is equivalent to 27 c. of American money.

Division of the School Day.—The minimum requirement in rural schools is eighteen sixty-minute periods weekly (not counting gymnastics, sloyd, drawing, handwork, and household economics). Just how these periods are to be assigned for the various classes is left to the teachers and the local school commission to decide. The final decision is generally governed by the needs and conditions of the community. Usually the older children spend more time in school during the winter months than the smaller children, with the reverse in summer. Some schools arrange their programmes wholly on the half-day session plan; others give a certain number of whole days (below six) to each class; others, again, have both half and whole day sessions for the different classes. This variety of arrangement can best be made clear through illustrations.

Vor Frue Landsogns Skole, near Odense in Fünen, is organised into eight grades, and these grouped into six groups. Grades one, two, three, four are separate groups; grades five and six form group five; and grades seven and eight, group six. The school year covers 246 days only. The school day begins at 8.30 o'clock during winter and 8.0 o'clock during summer, and closes at 3.0 o'clock, although four days in the week the children have gymnastics and domestic science from 11.0 to 12.0 or 3.0 to 4.0 o'clock accordingly as they are "forenoon" or "afternoon" pupils. Groups six, five, and two spend their forenoons only in school, and groups four, three, and one are in school afternoons only. This arrangement gives each grade four hours' school work daily, six days a week. The actual amount of time in school during the year is 984 hours, or 164 school days of the regulation length customary in the United States. There are three teachers in the school. During the forenoons five classes are in school, an arrangement which gives two teachers two each and the third teacher only one. These teachers do not keep the same room or classes all the time, but change from room to room with the change in hours. During the afternoons there are only three classes in school, one for each teacher. Considerable home study is required of all the pupils, so that the four periods in school can be devoted to what are known as recitations in the United States and careful assignments for the following day's work. The half-day sessions in this school certainly have many points in their favour: (1) The teacher devotes his full attention to not more than two classes during the half-day; (2) the pupils are wideawake and busily at work all the time both by reason of the shorter time and the continuous personal attention from the teacher; (3) the older pupils may devote a portion of the afternoons to work on the farm—an item which cannot be ignored in Danish agricultural economy.

Himmelev Rural School, near Roskilde, in Zealand, affords an illustration of the mixed system of both half and whole days. This is a well-organised school of three teachers. School is in session for forty-three weeks out of the year, or during 258 days. The only time the school is at rest is during Christmas and Easter and a short vacation in August. The idea prevails that it is a good thing to keep the children in school practically all the year, but for shorter school days than is the custom in some countries. At Himmelev the older pupils attend school four whole days and two half-days. In the summer time, when the older children are needed at home, this arrangement is reversed. This makes an average of four and one-half days a week per pupil, or 193.5 school days to the year.

In Ejby Rural School, Ejby, Fünen, attendance is also on the mixed plan of half and whole days, for 250 days of the year. The table below makes this plan clear:

School Attendance at Ejby

Class.	Hours weekly.		Days weekly.		School months of 20 days each.	Average length of school year in months.
	Regular.	Gymnastics, etc.	Half.	Whole.		
1 A . .	18	—	6	—	6.25	—
1 B . .	18	—	6	—	6.25	—
2 . . .	18	—	6	—	6.25	—
3 . . .	21	4	5	1	8.66	—
4 . . .	24	2	4	2	9.00	—
5 . . .	24	2	4	2	9.00	—
6 . . .	27	2	3	3	10.00	—
7 . . .	30	2	2	4	11.00	8.33

It must be understood that this table is for the winter half-year only. In summer time conditions are reversed. 1 A—the primary class—attends six half-days only during the winter; at the same time the highest class is in session four whole and two half-days.

This makes a yearly average of three and three-fourths days attended per week for each pupil throughout the school year. On the basis of twenty school days to the month the average school year at Ejby would be eight and one-half months.

The Course of Study.—The law requires certain fundamental subjects to be taught in every rural school. The list includes religion, reading, writing, arithmetic, geography, song, drawing, gymnastics (for boys), and handwork. Other subjects which are optional with the school commission and the local community are: nature study, hygiene and sanitation, sloyd, household economics, and a language other than Danish.

The table below gives the number of rural schools requiring the additional subjects and also extra periods in drawing:

Number of Schools with Instruction in Subjects not required by Law, with Extra Periods, etc.

Rural schools.	Natural science, including nature study.	German.	English.	French.	Other languages.	Mathematics above arithmetic.	Hygiene and sanitation.	Farm accounting.	Sloyd.	Drawing (extra classes).
Advanced grades (5–8) . . .	196	57	61	9	4	25	99	90	11	146
Elementary grades (1–4) . . .	7	3	3	—	—	—	103	—	—	6
Continuation schools	15	14	15	5	2	13	15	—	2	11
Total . .	218	74	79	14	6	38	217	90	13	163

Natural science, with special reference to agriculture, receives more and more emphasis. Nature study is taught informally in all the lower classes (Forskoler), although not as a separate subject, but rather as a leaven in all the subjects. German and English are prominent on account of the close commercial relations with these countries. The mathematics shown in the table comprises algebra and geometry as applied to mensuration. Hygiene is taught in the primary grades by informal discussion. Sloyd is not found in many rural schools, although it is on the increase. The larger towns and cities, on the other hand, are far ahead of the rural districts in this respect.

Class Organisation.—In very few rural schools is all the teaching left to one teacher. In such rare cases that teacher must be a man. But, as a rule, the district has a *Forskole*, or school for primary pupils, in charge of a woman teacher. This is often entirely separate from the regular school, is housed in its own building, and is generally more centrally located because more recent in origin than the main school.

The primary schools teach reading, writing, arithmetic through whole numbers, and singing of children's songs and hymns. Much of the work is based on object lessons. The narrative method is used largely in teaching the outlines of Bible history, Danish history and mythology, geography, and natural history (nature study). Gymnastics and play, especially the latter, receive much attention in the Forskole. This work ends with the fourth year.

In the regular one-teacher districts the children are under the care of the man teacher from the beginning of the fifth school year, unless the district offers no Forskole work, when, of course, the children enter the regular school from the first. But it must be kept in mind that very many of the Danish rural schools are regularly graded schools of two or more teachers, all working in the same building. In such cases there are no separate Forskoler.

The School Subjects.—A point of note is that reading and spelling are not mechanised and treated as arts complete and separate. They are taught rather as means necessary to higher educational ends. Spelling is taught as a part of the reading process. Consequently separate spelling books are not used.

Under the experienced teachers usually found in the schools, the mechanical and technical phases of language, such as reading, spelling, and grammar, are handled in such a way that the children show an ability to apply the language of the classroom to the language of the playground and the home. Danish language is taught largely through " doing "—*i.e.* through composition and dictation exercises. The teacher may give dictation from some simple reader or classic. This is studied and analysed, and rules of grammar are applied as needed. The work is largely of an inductive nature.

The religious subjects—such as Bible history, catechism, sacred music—are strongly emphasised in all the schools. Bible history is given orally in the lower grades and is studied from text-books in the upper grades. As taught, it furnishes an excellent foundation for general history. Catechism is taught from text-books, much of it verbatim.

History and geography hold high place in the course of study.

All school work, in fact, is given an historic background. History study is not limited to Denmark and Scandinavia alone. It is true Danish history receives special emphasis, but the course is rooted intelligently in the general history of all Europe and the Orient. A certain amount of church history is taught during religious instruction; this supplements the work in the history of the Middle Ages. Scandinavian mythology is studied as one of the history foundations. The geography classes devote much time to the Scandinavian countries, though the course covers the physical, mathematical, and political history of the entire globe in a reasonably thorough manner. In a few schools too much of the old memoriter processes prevail, and some of the teachers are inclined to lecture on history instead of teaching it.

Children in the primary grades are early made acquainted with nature; in part through stories and narratives dealing with natural history, illustrated by means of charts and coloured pictures, in part through a study with their teachers of the school environment. The upper grades take a reasonably thorough course in natural history, or biology, covering a general outline of botany and zoology and ending with a study of man, and hygiene and sanitation. The amount and thoroughness of the work vary greatly in different schools.

Few rural schools offer courses in manual training or sloyd; but there are indications which show that such work is becoming popular in the larger schools. Some of the night schools do good work in sloyd. Many of the village and city schools have excellent courses of this kind.

Handwork, such as sewing, knitting, darning, and embroidery, is required in all rural schools where women teachers are employed. In some of the one-teacher schools with men teachers in charge the wife of the teacher gives instruction in handwork, for which she receives a little pay.

Singing is taught in all rural schools. All teachers must be able to instruct in music whether they can sing or not. The teacher almost invariably accompanies the song on a violin, which all teachers know how to use. Patriotic and religious songs, folk songs, and nature songs are sung remarkably well. Even part songs are common in many schools.

Drawing is popular and well taught. Accuracy and neatness are watchwords in the drawing classes. Much the same can be said for the writing classes. Here, too, the children display much painstaking care and neatness. It is true the writing seems to lack somewhat in rapidity. "Muscular movements" in writing have little or no hold on the schools.

Much more attention is paid to mental arithmetic than in schools of other countries. The quickness and accuracy displayed by the younger children in analysing mental problems is remarkable. Enough of plane geometry is included in the highest class to furnish an intelligent foundation for problems in mensuration.

Gymnastics is compulsory in all the schools for boys. The older girls generally take the work as a "special" after regular hours. In the first three or four grades the boys and girls take the work in mixed classes. Later the sexes are drilled separately. The newer rural schools are supplied with indoor gymnasiums. Where these are lacking, a suitable plot of ground must be prepared out of doors, sanded, and supplied with suitable apparatus. The work in gymnastics is uniformly good. It is later taken up where elementary schools have dropped it and continued in the various folk high schools and local agricultural schools.

Methods of Instruction.—Danish schools depend more upon the ability of the teachers than upon text-books. The teachers are professionally prepared and consequently know how to draw upon their broad general reading and experience for much of the classroom materials, instead of depending upon the text-books to furnish everything required. The latter are mere "leading threads" in the school work, containing only the fundamental processes, if in mathematics, or outline studies, if in history and like subjects. The teacher supplies the rest. This means that the average teacher is free from overmuch slavery to books and can give more of himself and his individuality to the work. Where the books do not furnish everything, both teachers and children make larger use of their constructive and inventive ingenuity. On the other hand, some of the Danish text-books are too meagre and are of rather poor mechanical construction. In the hands of inexperienced teachers they would be of little value.

V. THE FOLK HIGH SCHOOLS

The folk high schools came into being at a time when the nation was politically distraught and in dire need of a healing and unifying influence. They succeeded in harmonising the discordant elements and binding all classes together in a common bond of love of fatherland. They afforded an opportunity for the educated classes to give the best they had in them for their country, and they made it possible for the ignorant to become educated and in time form a great working force for a better Denmark.

It is important to understand at the outset that the folk schools are not primarily vocational schools. They do not emphasise directly the practical aspects of farm life; they give something that has proved to be of vastly greater importance—a broad culture, a devotion to home and soil and native land, a confidence and trust in one's fellow man, and a realisation that success in life is measured by standards other and higher than mere money-making. The results of an adherence to ideals such as these have been a welding together of the people in Denmark which accounts for the remarkable success of co-operation as it has been worked out in every form.

That the folk high schools are to be credited with organising and systematising Danish agriculture seems almost incredible at first. Foreign educators and parliamentary and congressional commissions have come to study the schools in sceptical mood and have gone away convinced. One need go no farther than to take the testimony of the Danish leaders themselves. To be sure, many would point to contributory causes and the good work of the local agricultural schools; but even these are the "rightful children" of the folk high schools. Poul la Cour declares:

> The resoluteness and capacity with which Danish farmers passed over from making a quantity of poor butter on the smaller farms and holdings up and down the country to the manufacturing in co-operative dairies of a butter of almost uniform fineness is no doubt the consequence of their having had expert leaders like the late N. J. Fjord, without whom no progress could have been made. But the question remains how a great agricultural population in so short a time could be induced to follow directions and carry the matter through.

Mr. la Cour answered his own question by sending inquiries to 1230 dairies, most of them of the co-operative type. In the 436 that replied, forty-seven per cent. of the men in charge had attended some folk high school, sixty-two per cent. some dairy school, twenty-four per cent. attended some local agricultural school, and ninety per cent. had been at one or another of these schools imbued to some extent with the philosophy of Grundtvig, the founder of the folk high school.

The Work of Grundtvig.—Bishop Nikolai Frederik Severin Grundtvig (1783–1872) was a poet, philosopher, historian, and educator. Descended from an ancient, worthy family he early learned to hate the Latin schools of the narrow, scholastic type prevalent in his time. In 1828 Grundtvig retired from the active ministry and devoted himself to the translation of the Heimskringla, Saxo Grammaticus, and Beowulf, his idea being to make the great literature of the old north available to all and thereby to bring the glorious past to the common people of his country in such simple and attractive garb that they would be stirred to renewed effort. Out of this period came his plans for a school that would bind all classes together through a common folk culture. He came to feel that the youth of the nation should be brought together toward the close of the period of adolescence where, under inspiring teachers, they could be made to pause, think, and examine their souls in search of the purpose of life. The folk high school was the ultimate answer to the problem Grundtvig was revolving in his mind.

Bishop Grundtvig never outlined a definite scheme of what the school should be, but he formulated from time to time the working principles around which the folk high school has developed. Grundtvig made clear first of all that the ultimate aim of the schools must not be "examinations followed by a government living," but rather a culture, an enlightenment, which should be its own reward. Secondly, books were not to be unduly emphasised. The voice from the speaker's stand should wing the teacher's personality to the students, so that individual students might feel their own personality quickened into life. The folk high school was to concern itself with the fatherland, with its nature, its history, its needs, its occupations, and its shortcomings. And first in the list of subjects was to be the mother-tongue and all that belongs to it—literature, song, music, and the like.

The first of the folk high schools came into existence in North Schleswig at a time when national existence was threatened in that province. When the Rödding Folk High School was opened in 1844 to a score of peasant lads the purpose of the institution was declared to be:

> To found an institution where peasant and burgher can attain useful and desirable arts, not so much with immediate application to his particular calling in life, as with reference to his place as a native son of the land and a citizen of the state. We call it a high school because it is not to be an ordinary school for growing children, but an institution of learning in part for young children above the confirmation age, in part for full-grown men—and we call it a folk high school because members of every station in life may gain admittance to it, although it is primarily adapted to the needs of the peasantry and from it the school chiefly looks for its students.

The Rödding School of the early days can scarcely be called a typical high school. It was too closely tied up with the purpose of preserving nationality in North Schleswig to make of it such a factor in folk culture as the schools of present-day Denmark have become. It had a stirring existence, however, and Grundtvig's philosophy won out in a number of struggles over policy. At the close of the German war the school was moved from Rődding to the other side of the new boundary line, and here, under the name of Askov Folkehőjskole, it has become the greatest of all the folk high schools.

The real organiser of the folk high schools was Kristen Kold (1860-70). It was Kold who applied Grundtvig's philosophy in practice. Kold had been stirred mightily by the wave of liberal thought that swept over Europe during the middle of the nineteenth century. He played a humble rôle in helping to quell the uprising in the Duchies in '48; then, returning home filled with pride and zeal because of Danish victories against great odds, he wondered how such an outburst of national feeling could be kept alive in the people " so that all its members could take part in the great national questions and live in the national history."

Kold then began a unique experiment. As tutor in the family of a well-known clergyman, Vilhelm Berkedal, he requested and received permission to take in and instruct four young peasants in addition to his regular pupils. The result proved so satisfactory that Kold determined to resign his place and organise a small school of his own. With his savings he secured a piece of land for the school. But as his means were insufficient to carry out the enterprise, he laid his plans before Grundtvig, who immediately headed a subscription list for the new school, at the same time commending Kold to the good offices of other friends of the high school idea. A sufficient sum of money was raised and Kold opened the school at Ryslinge, Fünen, in the fall of 1851, with fifteen students ranging in age from fourteen to thirty-three years. This was before Kold had decided to follow Grundtvig's advice to exclude all below eighteen years of age. The school gave instruction—mostly by the lecture method—in the history of the world, in Norse history, Bible history, northern mythology, and geography, together with readings in Danish and Scandinavian literature, and practice in singing, especially the old folk songs and hero ballads. Considerable emphasis was placed, in addition to this, on a review of the elementary-school subjects, taught in such a way as to make them immediately applicable to daily life.

All went well until Kold and his adherents undertook to reform the elementary schools of the island. Then all his opponents rallied against him and for a while it looked dark for the future of the school. But through it all his students were staunch in their support. Finally, a government board was sent to examine and catechise the students to see whether the charge could be substantiated that the school taught nothing but foolishness. The crisis in the examination came, according to Kold himself, when the examining dean asked the husky farm lads this question: "Who checked and defeated Attila the Hun?" But almost instantly a young peasant from Jutland answered: "Aëtius." This helped. The board had come in a critical mood and went away convinced that the school was doing a genuine work for the community. The commission recommended that the state aid be increased, and thus the school was saved.

Before all this happened Kold had moved his school from Ryslinge to Dalby in north-eastern Fünen, where he worked successfully for nine years. The number of students grew year by year, necessitating larger quarters. Kold, accordingly, acquired a farm of considerable size at Dalum, near Odense, where he erected substantial buildings. Here, from 1862 till the time of his death eight years later, Kold continued his noble work. In those years at least thirteen hundred students sat in his classes, becoming inspired to go out and live clean and useful lives.

Kold's school fell far short of Grundtvig's ideals of what such a school for universal folk culture should be; but he gave the masses of the people all they were prepared for at that time. Some of the folk high schools were founded by men of much greater academic training than Kold, though none got as great a hold on the common people as he. Now, after half a century of evolution, we find throughout the land a system of folk high schools which combines the best of Kold's homely wisdom with the greater learning of his Ryslinge and Askov trained compeers.

When the war of 1864 broke out there were less than a dozen of the schools in existence. But the disastrous war furnished the necessary spur. In a short time they were springing up on every side to become the centres from which the national reorganisation began. At the time of writing, four score such schools are busy in every part of the kingdom, inspiring young and old with the best life ideals, teaching them to work for a nobler nationalism and a greater Denmark.

Organisation and Methods of Instruction.—Between 1844 and

1913, 145 folk high schools and thirty-nine local agricultural schools were organised, of which sixty-six folk high schools and sixteen agricultural schools were later closed down, leaving in all seventy-nine schools of the former kind and twenty-three of the latter. This tabulation takes into consideration government-aided schools only.

A group of nearly 600 men and women are required to do the work of the folk high schools. These teachers are bound by common bonds through Grundtvig's philosophy. Their efforts are further harmonised at periodical high-school meetings held over the country, by special university courses for high-school teachers, and the like.

The preparation of the teachers is not uniform. Many of the principals and permanent teachers have the best academic preparation possible. The rest are educated in the teachers' seminaries and at the folk high schools themselves. While thorough academic and professional training is held in high esteem at the folk high schools, these are by no means the only qualifications considered.

During the periods 1844-46, thirty-four men and six women attended the folk high schools, and thirty-six men the agricultural schools. By 1911-12, 6936 men and women were in attendance at the folk high schools, and 1659 men and women at the agricultural schools. These figures leave out of consideration the dozen or more rural schools of household economics (see table on opposite page).

The total attendance for 1911-12 was 8595; the number would almost reach 10,000 if the schools of household economics and certain non-recognised schools were included. The agricultural schools comprise a little more than nineteen per cent. of the total attendance, and the women almost 46.5 per cent. of the folk high school attendance.

The heaviest attendance is during the winter months (November–March) when the schools for men are in session and during the summer months (May–July) when the schools are reserved for women. The attendance for the other months is drawn from certain advanced continuation courses requiring school residence throughout the entire year.

Some of the schools have special, well-equipped departments for the training of artisans—such as masons, carpenters, cabinet-makers, painters, tinners, etc. Two of the high schools, lying near the coast, used to offer courses for sailors and fishermen of an

Average Number of Students in Attendance at the Folk High Schools and Local Agricultural Schools, 1844–1912 [1]

April 1 to March 31.	Folk high schools.			Agricultural schools.			Total number in both schools.	Agricultural students in per cent. of all students.	Women in folk high schools; per cent. of total folk high school attendance.
	Men.	Women.	Total.	Men.	Women.	Total.			
1844–1846	34	6	40	36	—	36	76	47	15
1846–1851	20	14	34	42	2	44	78	56	41
1851–1856	135	29	164	61	4	65	229	28	18
1856–1861	209	35	244	75	1	76	320	24	14
1861–1866	331	65	396	89	2	91	487	19	16
1866–1871	1,320	371	1,691	186	7	193	1,884	10	22
1871–1876	2,060	1,038	3,098	153	2	155	3,253	5	34
1876–1881	2,182	1,242	3,424	349	12	361	3,785	10	36
1881–1886	2,151	1,424	3,575	443	18	461	4,036	11	40
1886–1891	2,180	1,587	3,767	418	82	500	4,267	12	42
1891–1896	2,626	2,189	4,815	516	43	559	5,374	10	45
1896–1901	2,732	2,612	5,344	849	6	855	6,199	14	49
1901–1906	3,249	3,033	6,282	1,083	43	1,126	7,408	15	48
1906–1911	3,385	3,153	6,538	1,175	156	1,331	7,869	17	48
1905–1906	3,493	3,196	6,689	1,107	90	1,197	7,886	15	48
1906–1907	3,273	3,266	6,539	1,015	106	1,121	7,660	15	50
1907–1908	3,119	3,023	6,142	1,060	129	1,189	7,331	16	49
1908–1909	3,388	3,227	6,615	1,129	173	1,302	7,917	16	49
1909–1910	3,541	3,147	6,688	1,309	181	1,490	8,178	18	47
1910–1911	3,603	3,104	6,707	1,361	189	1,550	8,257	19	46
1911–1912	3,712	3,227	6,939	1,460	199	1,659	8,595	19	46

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[1] These are regular students only. The large number of short-course students are not considered

inspirational rather than professional nature, but these have recently been discontinued. Special departments are maintained for the training of teachers in physical education and gymnastics. Gymnastics is otherwise taught as a subject in all the regular courses. Subjects in household economics are offered in the regular courses, but no complete departments of this kind have been maintained since the establishment of separate rural schools of household economics. The number of students pursuing control assistant[1] courses during 1912-13 numbered several hundred, which is a marked increase over the figures set forth in the above table.

According to statistics for 1910-11, only six per cent. of the students in the two kinds of schools came from the towns or cities. This shows definitely that the folk high schools—as also the local agricultural schools—have become distinctively the schools of agricultural communities. The average for all the schools is about eighty-five students. However, the actual attendance ranges from ten or more to about 400 in a school. Many of the smallest schools do some of the very best work.

Of all the students, fifty-four per cent. were (1910-11) children of substantial middle-class farmers (Gaardmaend); twenty per cent. came from the smallholders (Husmaend); ten per cent. were children of country artisans; three per cent. of country labourers; and the rest were variously distributed. Of the students, ten per cent. were country artisans by trade and thirty-eight per cent. of all received state aid.

Of the total number in attendance, one per cent. of the students were below sixteen years of age at the time of matriculation; six per cent. were between sixteen and eighteen years of age; eighty per cent. were between eighteen and twenty-five years; and thirteen per cent. were above twenty-five years. Only 1.3 per cent. of the entire number had attended Realskoler or Latin schools. All the others had completed the work of the elementary school and had devoted their time to practical tasks until old enough to gain admittance to the folk high schools.

The folk high schools are private institutions as to ownership, but those that do their work well and reach the mass of the common people are aided by the state. For a number of years the state aid was small and grudgingly given. But as the government came to realise the value of the schools, and especially as the farmers themselves have come into control of the government, the annual appropriations have increased rapidly. This aid is given either in (1) assisting in the direct maintenance of the schools; (2) helping students to meet school expenses. The table on the next page[1] indicates the manner in which state aid to students is distributed.

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[1] Control assistants are experts in agriculture and dairying who serve as local assistants.

The total amount distributed during the year for student aid was 233,805.78 kroner (crowns). The total number of applications for aid was 4747, of which only 2705 were accepted.

The recent growth in the state subsidies to the schools and their pupils may be seen from the following figures: 229,292 crowns in 1908-9; 241,551 in 1910-11; 424,700 in 1912-13; and about 520,000 in 1913-14.

State recognition of the schools is regulated by law. In order to be placed on the accredited list, the school must have been in successful operation for at least two years, and during the two years must have enrolled no less than ten students for twelve months, or twenty students for six months, or forty for three months. None of these can be less than sixteen years of age; nor can more than twenty-five per cent. of the male students be from sixteen to eighteen years of age.

Cost of Schooling.—One of the chief reasons for the substantial growth of the folk high school is the relatively low cost of the schooling. The amount charged for tuition, board, and lodging is determined from year to year by the Association of Folk High Schools and Agricultural Schools, which is binding upon all the schools holding membership in the association. The charges for 1913 were: a winter course of five months for men, 175 crowns for tuition, board, and lodging—twenty-five crowns a month for board and lodging and for tuition, payments of twenty, fifteen, ten, and five crowns, respectively, the first four months, with nothing to pay the last month; a summer course of three months for women, ninety-six crowns for tuition, board, and lodging—seventeen crowns a month for board and lodging, and tuition for the three months, twenty, fifteen, and ten crowns, respectively. Ten crowns should be added for books and other supplies, and two crowns for doctor fee. This makes the total amount paid for a five months' winter course only 187 crowns, or $50.50, and for a three months' summer course 108 crowns, or $29.19.

The School a Democratic Body.—The students of the folk high schools form a highly democratic body. A strong sense of respon-

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[1] From the *Bulletin of the Bureau of Education*, 1914, No. 22, p. 33.

How State Aid to Students is distributed

Geographical divisions.	Kind of school.	Sex.	Applications for aid.		Amount distributed.				
						Average for school month.			
						Men.		Women.	
			Total applications.	Number accepted.	Total.	High schools.	Agricultural schools.	High schools.	Agricultural schools.
					Crowns.	Crowns.	Crowns.	Crowns.	Crowns.
The Islands . .	High school	Men	729	385	42,140.50	21.93	—	—	—
		Women	570	387	26,385.00	—	—	21.99	—
	Agricultural schools	Men	227	129	17,880.28	—	25.54	—	—
		Women	93	51	6,032.00	—	—	—	25.03
Jutland . .	High schools	Men	1,555	746	69,780.00	18.93	—	—	—
		Women	1,233	791	49,799.50	—	—	19.53	—
	Agricultural schools	Men	262	152	18,134.50	—	23.55	—	—
		Women	49	36	3,654.00	—	—	—	25.03
Denmark . .	High schools	Men	2,284	1,131	101,920.50	19.96	—	—	—
		Women	1,803	1,178	76,184.50	—	—	20.43	—
	Agricultural schools	Men	489	281	36,014.78	—	24.50	—	—
		Women	142	87	9,686.00	—	—	—	25.03
The Faroes . .	—	—	29	28	2,200.00	—	—	—	—
Total . .	—	—	9.465	5,382	459,811.56	19.96	24.50	20.43	25.03

sibility and respect for the rights of others pervades the school atmosphere. The students are treated as members of the principal's family. Indeed, the latter usually presides over the dining-room, where teachers and students meet on common ground. All the students, except those who live regularly in the vicinity of the school, are expected to room in the dormitories, where small groups of them live in close contact with chosen teachers whose constant inspiration counts for much in the course of training.

In many schools the students live under self-imposed rules and regulations, enforced by representatives chosen from among themselves. Since the students are grown-up people who should know how to behave, the system has proved generally satisfactory. As a matter of fact, no other rules are necessary among the students than such as might apply to the average family and be dictated by the feelings of respect and love for one another.

It is literally true that the day's work at the folk school is so full of varied interests from early morning until late at night that it would be difficult for any one so inclined to find time for "irregularities."

The Subject-Matter and its Presentation.—The lecture method of presenting the subject-matter prevails. The method is varied, however, without warning, with a give-and-take process of questions and answers. The element of interest plays a significant rôle in all the work. The young people who attend the folk high schools come to them at the time in life when they are most impressionable. The teachers in the folk high schools know this period and turn it into an abundant seed-time. Denmark has been fortunate in producing an unfailing supply of teachers who seem able to meet the heart-cravings of the seekers after truth. They are themselves men who "feel a fervour and zealous warmth for their vocation and possess a power to captivate the attention of their students." The teachers are required to have what has been termed the "historical-poetical faculty," for the whole course of training is based on history. This historical background is thus described in a bulletin of the United States Bureau of Education:[1]

> This historical background is broad enough to include materials from the virile mythology of the Old North as well as problems of present-day social science. Folklore, songs, and literature hold important place in the curriculum. The Danish high-school students are often as well acquainted with Shakespeare and Emerson, Goethe and Tolstoy, as with their Scandinavian Holberg, Ibsen, and Björnson. Religion in the dogmatic sense is not taught in the schools, but historical

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[1] *Bulletin*, 1914, No. 22, p. 36.

teaching, if properly done, is itself religious; that is, as one of the high-school men has expressed it: "The hand of God is shown all through the evolution of the ages, and in this way the religious feeling is constantly kept awake and exercised."

Two Kinds of Folk High Schools.—It has long been a mooted question among Danish educators just how far the high schools might safely go in the pursuit of the "practical subjects." Shall training for life pursuits be taken up by the high schools, or shall this be left entirely to professional schools? Many of the leading school men insist that to introduce professional studies would mean the early decadence of real folk high school culture. Of the seventy-nine government accredited schools, forty-eight adhere to the culture idea. In this list are, perhaps, a majority of the schools which have done most to place a real stamp on the character of the nation, but thirty-one schools—among them some of the largest—offer specific courses in agriculture, horticulture, carpentry, masonry, etc., and seem in no danger of losing their original inspiration.

Song.—Music, song, and poetry play an important rôle in the folk high school. Every lecture or recitation begins with song. Every student sings. Many of the high-school men are poets as well as music lovers, often having the gift of spontaneous composition common in the Old Norse skjalds or minnesingers.

Gymnastics.—Gymnastics is another important subject in the folk high schools. Although students come to these schools usually from outdoor active life, every day's work includes at least sixty minutes of gymnastics, and often twice this amount. The Swedish Ling system has been modified. Every visitor to these schools is impressed by the fact that the work in gymnastics has made "sturdy, clear-eyed, keen-witted men out of the shuffling young farm louts who have come to the school; and it has taught young women pride in strong, beautiful bodies." A highly important result is that the love of gymnastics and outdoor play is carried back by the high-school students to their community. The gymnastic associations that have been organised by high-school students in every country commune mean much for continued close social relationship. It is not too much to say that song, gymnastics, and play make up the trinity of Danish rural recreative life.

Spiritual Development as the Result of the Work.—How the intellectual life of the student gradually unfolds in the atmosphere of the folk high school is interestingly told by an old Askov student:

At 7.0 o'clock in the morning, the school bell hanging before the main entrance is sounded. The school becomes awake. Doors and windows are thrown open, and then students make their beds (there are, as a rule, two in a room, each student furnishing the bedding from home), fetch water, brush, beat, sweep, and polish. By 7.30 o'clock everything must be spick and span. The bell sounds for a second time and all students assemble for coffee[1] in "Dagmarsalen." One hears a clappering of wooden shoes and heavy boots. From the "white house," from the main building, and from the dormitories the husky fellows come a galloping and are soon seated at the long tables in the large dining room. After coffee there is morning devotion. It is a personal matter whether or not one takes part in this. Exercises open with a piano voluntary by Fru Ingeborg Appel, wife of the principal; then follow song and prayer.

The first class period of the day begins at 8.0 o'clock, in the large lecture room. The lecture is preceded by song. Song, song, and again song, might well be the folk high-school motto. The songs are mainly from Grundtvig, Richardt, and Björnson, together with folk songs. The lecture programme varies from day to day. Either Dr. Marius Kristensen lectures on philology, or Professor Poul la Cour gives a course in historical mathematics, or Professor Ludvig Schröder speaks on Norse mythology and the heroes of old.

At the close of the lecture the young men rush out in a hurry. They must get to their rooms and dress for gymnastics, which begin at 9.0 o'clock. The instructor gives the order, and the columns "double quick" around the gymnasium several times to rouse the gymnasts to keen attention. Then they go through the "setting-up exercises" with great expedition. Thereupon they separate into smaller troupes and are soon engaged in a large variety of exercises. Some go through contortions on the Swedish ladder; others are using the hand and arm beams; still others are exercising on the horse. Every man works with a vim and at the close of the period the perspiration stands out all over their well-knit bodies. The command to dismiss is given, and the young fellows rush to the baths and the welcome showers. No sooner are they dressed than the bell calls to breakfast.

At 10.30 o'clock all the students meet again in the large lecture hall. This time it is either Professor la Cour or Principal Appel who gives an interesting lecture on some topic in natural science, or la Cour lectures on the historic method in mathematics, or Professor Axelsen introduces a theme in modern history. When this period is ended the students scatter to various classrooms to receive instruction in accounting, handwork, hygiene and sanitation, history, and geography, up to 2.0 o'clock.

The dinner hour is 2.0 o'clock. The kitchen at Askov is not the least remarkable of the many interesting places there. An exceptionally able housekeeper is required to make ends meet and to make it possible to serve four meals a day on the twenty-five crowns a month for board. The dinner is good and wholesome; there are always at least two courses, say, vegetable or fruit, soup and roast beef, or a variety of Danish national dishes. The culinary department is at Askov, as at other folk high schools, under the particular supervision of the principal's wife, who, besides, at times takes considerable part in the practical instruction. After dinner the class work is suspended until 3.25 o'clock. Such students as desire may meanwhile devote their time to outdoor sport, football, or, when the weather permits, some winter game or other.

At 3.25 o'clock the beloved old Nutzhorn, one of the original founders of the school, appears with his baton under his arm. The students gather at the gymnasium, and soon the large hall is filled with a great volume of song from the hundreds of student voices.

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[1] It is customary to eat a very light meal—porridge, bread and butter, milk or coffee—immediately upon rising. Breakfast is served at 10.0 o'clock, dinner at 2.0, and supper at 7.0.

From 4.0 to 5.0 o'clock instruction is given in Danish, German, and English for the young men, while the young women [1] take their gymnastic exercises under the command of Fru Appel.

At 6.0 o'clock all the students meet in the large lecture hall for the last lecture of the day, which again deals with history. Either Professor Fenger lectures on an epoch of Danish history, or Principal Appel [2] takes up a phase of other European history, as, for example, of Prussia or England, or Professor Schröder deals with Grundtvig's national philosophic thought or a theme of similar content. Schröder is Askov's real founder and is one of the high-school leaders who has wielded the greatest influence. The method used by him in presenting his subjects is, according to the testimony of many high-school teachers, the acme of the highest and purest in the art of popular lecturing, and whoever has been so fortunate as to have heard him will know the significance of the power of the "living word." Self-control and deep sincerity characterise his method. Remarkable for deep thought, he expresses himself in plain, straightforward terms which are as free from doctrinaire dullness as from oratorical pathos. Schröder is known to have said that he is often filled with diffidence and worry to have guests, especially from learned circles, tell him at the close of a lecture that they had found it "interesting." "If my lecture has only been entertaining," he would say, "then it has failed in so far as it was the purpose to impress my listeners with some responsibility which they should meet and take." There is another way of listening. It happens occasionally that one hears at the close of a lecture a great inhalation of the breath. This is a sure indication that the inner man has felt the weight of the argument and has taken it to himself personally.

VI. TYPICAL FOLK HIGH SCHOOLS

A glimpse of a few of the typical folk high schools may help to create a picture of the institutions. There are now seventy-nine government-accredited folk high schools established throughout Denmark. The six schools selected may reasonably be considered typical. They are Roskilde, Fredricksborg, Vallekilde, and Haslev in Zealand, Ryslinge in Fünen, and Askov in Jutland.

Roskilde Folk High School.—Roskilde, the ancient capital of Denmark and burial-place of its kings, is near the centre of Zealand. The school lies two miles down the fjord from the town. A brisk walk over the excellent, well-rounded, surfaced, and ditched roads brought us to the school, which is constructed of brick and stone in sixteenth-century style. Several substantial teachers' cottages flank the main approach. The principal and his family live in a wing of the main building, so as to be in the midst of the pupils, to direct and advise.

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[1] Askov is one of the few co-educational folk high schools.

[2] Principal Appel has left his post at Askov to become the Minister of Education for Denmark.

One hundred and forty young men were in attendance the day the school was visited—a sturdy family—sixty per cent. of them sons of Gaardmaend (farmers of from fifteen to one hundred acres), twenty-five per cent. of them sons of Husmaend (farmers of one to fifteen acres), and the rest sons of artisans and labourers from country and town. But here they were on an absolutely equal footing.

A lecture period by the principal, which we attended, reflected the daily life and work of the school. The period began, as every period does, with song. This was a rousing religious-patriotic song through which the youth pledges himself to God and fatherland. The particular lecture theme was Grundtvig's influence on history, poetry, and song. The high-school "inspirer," as he is at his best, was seen in Mr. Bredsdorf, who so enthused his listeners that they hung on his every word.

Living conditions were exceedingly simple. The students in this particular school pay only twenty-two crowns per month for board and room, equivalent to about $5.95. The charge for tuition is twenty-three crowns for the first month, eighteen for the second, thirteen for the third, eight for the fourth, and three for the fifth.

During the afternoon intermission groups of young men continued to discuss the more vital points raised in the morning lectures. Some of these concerned questions of such ethical and philosophical nature as the farm youth of most countries would seldom care to approach. The zeal of the students and instructors cannot be better demonstrated than in this, that one of the busy faculty members of Roskilde walked all the way to town with us in his eagerness to explain some of the great points in the school doctrines.

Fredricksborg Folk High School.—Fredricksborg is one of the most renowned of the newer schools. It was founded by the well-known Askov instructor, Holger Begtrup, in 1895. An ardent follower of the famous poet, J. C. Hostrup, who was also a great patron of the folk high schools, Begtrup determined, when the poet died in 1892, to raise up a school in Hostrup's home community as the most practical way to honour the memory of a man who in life gave the best he had for Denmark.

Thus Fredriksborg Folkehöjskole came into being at Hilleröd, in north-east Zealand. The name (originally intended as "Hostrup sminde") is that of the renowned royal Fredricksborg castle on the edge of Hilleröd village, which naturally became fastened to the school. The institution and its grounds are very attractive. It comprises a large, well-built main building, and several smaller structures, together with teachers' cottages and a school church. The latter is a " free church," *i.e.*, established by the school and community as a voluntary organisation outside of the state church. These churches are found as members in most of the high-school organisations, and their origin is easily traced to the movement for freedom within the church begun by Grundtvig in the early days. Twenty-two acres of land comprise the beautiful, well-planted campus, garden, park, and home farm, on which latter vegetables and fruit are raised for school consumption.

The winter school (November–March) at Fredricksborg is usually attended by from 125 to 140 young men of sterling worth. The summer school (May–July) for young women is larger, often passing the 200 mark.

Fredricksborg offers interesting continuation courses for advanced students. These are organised into an association called, rather sententiously, the " Window " or " The Window in the West," the idea being that this class of advanced and mature students should be looking out from the windows of life with serious thought toward the ultimate purpose of being.

Fredricksborg holds the unique position of being the touching point between the Danish folk high schools and the schools of a similar nature now rooting themselves in English soil. The first school of this kind was opened at Bournville, near Birmingham, in 1909, by Tom Bryan, a scholarly gentleman, whose inspiration to establish such a school came to him while listening to a lecture in one of the Danish schools. During the last few years a most interesting exchange of ideas has been going on between Fredricksborg and Fircroft—the name of the Bournville school. Both teachers and students have been exchanged.

Vallekilde, a Great Folk High School.—Immediately after the close of the disastrous German war in 1864, Ernst Trier, one of the three or four greatest school men that Denmark has produced, laid the foundations of Vallekilde, in north-west Zealand. He felt that now Denmark's only hope lay in education. " The folk high schools," he said, " alone can lift the disheartened people." He opened the school in rented quarters in 1865. Success came from the very first, because he was inspired for the great task. To-day, his son-in-law and successor, Poul Hansen, stands at the head of one of the most complete and influential schools in the country.

Ninety acres of fine rolling land, laid out in ornamental gardens, parkings, experimental plots, and school farm, comprise the working area of the school. In this lies a regular village of buildings. The most important of the structures are a large, fire-proof central school building with dormitory capacity for 200; a good, carefully equipped gymnasium; a building for manual training, and another for art work. There are cottages for all the married teachers, a school church, and an elementary school for the children of the faculty.

The school farm has some remarkable buildings that deserve at least a passing notice. The entire plant, by the way, including cow barns, stables, and hog houses, is lighted by electricity generated by means of wind power. The enormous windmill was the first of its kind erected by the famous Askov teacher-scientist, Poul la Cour. The mill is fitted with storage batteries of sufficient size to supply current for a week at a time in case of still weather.

In the fine sanitary cow barns thirty thoroughbred red Fünen cows are kept. As an illustration of careful economy in everything agricultural, all liquid manure from these barns is made to pass by cement gutters to outside cisterns, whence it is forced by electric power to the meadows and ploughed ground, and carefully sprinkled over the soil. The school butchers its own pork and beef. But the cream all goes to the co-operative creamery in the vicinity, and the butter is actually "bought back" by the school. There is also a large school bakery on the campus, and a well-equipped hospital with separate building for contagious diseases.

Vallekilde has from 160 to 180 young men in attendance during winter months and 200 girls during the summer time. Then the young men are divided into distinct groups as "agriculturists" and "industrialists," the former preparing, as the name would indicate, for soil-tilling pure and simple; while the latter are to become farm artisans of various kinds. It is interesting to note that Vallekilde, which has retained the early high-school philosophy in all its purity, is able to combine with this a large degree of the practical without losing any of the cultural values. To be sure the entire industrial group must attend all the general lectures and live in the same "atmosphere" as the other students, and the industrial work is chiefly theory after all. Such subjects as these are taught: history of architecture, building construction, drawing—freehand, mechanical, machine, etc.—painting (practical work), calculation, bookkeeping, and penmanship.

The agricultural group makes some approach to the practical through occasional lectures in agriculture and horticulture, drawing, and actual field work in surveying and levelling.

Vallekilde is strong in gymnastics, play-life, and song. The young women of the summer school are offered exceptional opportunities for the study of handwork, music, and the fine arts; but these studies are considered as incidental merely to the culture lectures.

Haslev, a Folk High School of the Practical Kind.—Haslev is one of the group of six schools founded by the "Inner Mission Church"—an independent church body. To be exact, the school is owned by an association of church members which seeks to reach primarily its own membership, though all students are made welcome. The "patriotic-spiritual" life which stamps the regular Grundtvigian schools is possibly not so marked at Haslev. On the other hand—since it is a church institution—religious subjects are actually taught as part of the course of study.

The school lies on the edge of Haslev, a small town in south-central Zealand. The buildings are set in a tract of seventy-five acres, fifteen acres being devoted to campus, parking, experiment plot, and garden. The rest of the land is farmed and supplies milk, meat, and vegetables for the school. Three good-sized buildings are used immediately for teaching purposes, beside ample barns, stables, etc. There is dormitory capacity for 210 persons. Electricity is freely applied in this school all the way from peeling potatoes in the school kitchen to running the thrashing machine at the school barns.

The study courses here aim to reach two classes particularly: (1) those who are to till the soil, and (2) those who are to live as artisans in the country. It is interesting to see how the school seeks to train the actual soil-tillers and the country artisans as well, thereby keeping alive in the country a twofold civilisation.

The first-mentioned of the two classes is really what the other schools would designate the regular cultural group, though here at Haslev it becomes the farm group. It gets less of the inspirational work offered by the former schools, but more of religious lectures and practical agricultural work. Forty-five hour periods are devoted to class work each week by the young men in the winter school, as appears from the following enumeration:

Regular High-School Section for Men

	Hours weekly.
Lectures on Bible history	3
Lectures on church history	2
General lecture	1
Biographies of great men	1
Question hour	1
History of missions	2
History of Denmark	2
Lectures on general history	2
Lectures on the history of literature	1
Danish (composition, analysis, classics)	5
Accounting	4
Penmanship	1
Natural science	2
Drawing	2
Geography	2
Sanitation	1
Horticulture	1
Farm accounting	1
Gymnastics	3
Agriculture	6
Song drill	2
Total	45

The seven hours devoted to agriculture and horticulture include the history of agriculture, practical work in planning the farm, plotting and planting gardens, and field-work in surveying and levelling, pruning of fruit trees, etc.

The summer course for young women is quite similar to the course described above, with the exception that six hours of plain sewing, embroidery, knitting, and dressmaking are substituted for the agriculture. It is well to add here that the summer schools for women in all of the folk high schools require much sewing—seldom less than one hour daily.

The artisan group at Haslev is subdivided into smaller groups or classes, as carpenters, brick and stone masons, smiths, machinists, painters, tinners, and wheelwrights. The course of study for carpenters and masons will serve to illustrate the kind of work required from the entire group: the courses cover three winters of five months each, and are intended especially to answer the needs of the country artisans who work during the summer months. The first year is devoted more particularly to theory, *i.e.*, geometrical drawing, projection, algebra, and geometry. The second-year class emphasises building construction. By the close of this year the students are able to draw plans and specifications of fair-sized farm buildings. By the close of the third year they make their own drawings, calculate the size of timbers, iron supports, etc., with great accuracy. Much practical work is done on the premises, although most of the work is devoted to miniature buildings and models.

The artisans are required to follow this weekly schedule:

	Hours.
Lectures (in regular high-school section)	12
Danish (composition, analysis, classics)	6
Accounting, arithmetic	4
Bookkeeping	1
Natural science	1
Gymnastics	3
Technical subjects	22
Total	49

Haslev is proud of the fact that it is sending out annually scores of practically trained artisans who not only know their profession, but are also equipped with the additional advantages of having spanned the gap between the deadening workaday in life and the higher culture life which of right should be the common heritage of all.

Ryslinge in Fünen.—Ryslinge, which is a small country village in south-central Fünen, beautifully situated in a prosperous agricultural community, holds high place in folk high school history. It was early brought into notice because here Kristen Kold opened his first school in 1851. The community has been prominent in many other ways. The free-church movement began here in the early days. The first *Valgmenighed*, or free choice congregation, was founded here, *i.e.*, a congregation in which the membership is free to choose its own pastor, instead of being obliged to accept one appointed by the state. Here, too, were organised the first *skytteforeninger* or associations of sharpshooters, which built at Ryslinge the first of the rural assembly halls now found in every country commune. And nowhere have the gymnastic organisations prospered more than here.

Ryslinge Folk High School can scarcely be considered a continuation of Kold's school, though it has taken to itself all the spirit and all the traditions of this school. As it now stands, Ryslinge owes its origin to a former army chaplain, Johannes Clausen, who began his school activities here in 1866. He was pastor of the local church and really intended his school for an "inner mission" institution, but he brought several teachers—his intimate friends—into the school, who had strong Grundtvigian tendencies. This indiscretion probably cost the principal his position; but it gradually gave the school a new colouring, so that to-day it stands for the purest of Grundtvig's philosophy.

In 1884 a new era began at Ryslinge, when Alfred Poulsen was chosen principal. He came from Lyngby Agricultural School, where he had been in charge of the folk high school department. Poulsen is one of the biggest school men in active charge of the schools at the present time. The most lucid delineation of the folk high schools ever penned in English is from his hand. He is also president of the Association of Folk High Schools and Agricultural Schools, an organisation which has been of vast importance in unifying the work of the schools and in getting for them the necessary state recognition and aid.

Professor Poulsen is one of the most ardent advocates of the policy of keeping the folk high schools as free as possible from text-books and classroom practices. He says:

" It is a great mistake and contrary to the high-school philosophy to combine this school with agricultural schools, or with other departments requiring much study. The right spiritual uplift of the man and opening of the soul demand, first of all, peace and quiet. Where there is much book activity there can be little time for meditation and the 'living word' becomes powerless."

His fear is that many practical subjects strongly emphasised will force the real spirit of the folk schools into the background —ultimately to get only such time for lectures as cannot be used for "practical" purposes. A majority of the school men seem to share these views.

Ryslinge is remarkably well built and attractive. Its attendance is limited to 200 young men in winter and 200 young women in summer. Months before a term opens the matriculation sheets are closed, and the students are refused for want of room. The fact that such schools deliberately limit themselves to a comparatively small number of students should convey a hint to schools where big numbers too often play the master rôle.

In organisation of courses, in daily life, and in other ways Ryslinge closely resembles Vallekilde; to tell the story of one school is to give that of the other. Our sojourn there was delightful and instructive, although cut short because of the principal's forced absence from home.

Askov "Expanded" Folk High School.—When Schleswig became German territory Rödding Folk High School was transplanted, it will be recalled, root and branch, to loyal soil north of

Kongeaaen (King's River) which marks the new boundary. Vejen is an unimportant country village on the railroad between Kolding and Esbjerg, and the topography of the country is, on the whole, monotonous and uninteresting. In spite of all this, no spot in Denmark has greater historic memories, nowhere is the patriotic life and the folk life more keenly alive than here on the frontier. Askov Folk High School, the greatest of all the folk high schools, lies in the midst of this community, a short half-hour's walk south from Vejen, right in sight of the German frontier. Had Denmark built strong, frowning earthworks along the boundary they could not have been the national defence that she now has in the work of this school. North of the line the people have become welded in clear-sighted, far-seeing nationality, and even south of it Danish spirit and Danish language have been kept alive. It is a significant fact that a large number of young people from the German side of the boundary may be seen not alone at Askov, but at the other schools in the peninsula and over on the islands.

Askov is a direct continuation of the first school established in Denmark, and has retained all the old traditions. Above the portal of the oldest of its many school buildings may yet be seen the inscription: "Flors Höjskole," in remembrance of Dr. Christian Flor, the early champion of Rödding. Ludvig Schröder brought the school across the boundary and directed its work up to the time of his death in 1908. During these years remarkable progress has been made. The school was at first conducted as an ordinary folk high school; but in 1878 it was reorganised as the "Expanded" Askov.

Prominent high-school leaders had ever since Grundtvig's time kept alive the hope that Sorö would eventually be converted into a great central folk high school with continuation courses for students from the other schools. All hope finally failed, and by common consent Askov was chosen instead. Indeed, such men as Ernst Trier, of Vallekilde, and J. Fink, an old Ryslinge leader, and their supporters, were among the first to point to Askov as the logical place for such a school. The Danish high-school association was organised to look after the financial side of the problem, and with such marked success that the reorganised school could begin its work as early as November, 1878.

At the present time the following courses are offered: an advanced course for men, covering two winter sessions of six months each; an advanced course for young women, also covering two winter sessions of six months each; and a regular summer course for young women.

In the advanced courses the men and women attend the lectures in common; although in most of their other work they have separate classrooms. The men alone reside at the school dormitories during the winter sessions. The women students find accommodation in the small village that is springing up around the school grounds.

Some 260 young men and women—the pick of the advanced folk high school students—were in attendance at the time of our visit. Many of these had completed the regular courses in the other folk high schools; some were here from the agricultural schools; some from teachers' seminaries and from the "learned" schools; and still others had come from the National Polytechnic Institute and the National University. This enthusiastic throng was here preparatory to going out into the other folk high schools as teachers and inspirers.

The summer courses at Askov differ but little from the summer work in the other schools. Even the first year of the advanced course is practically the same as offered elsewhere. The difference lies in the second year's work. Throughout, there is more actual book study, methods, and laboratory work. The natural and social sciences, especially, receive much attention.

The daily programme shown on pp. 482, 483, and 484 will give a good idea of school work at Askov.

Askov has had associated with it the names of such great men as Poul la Cour, Svend Högsbro, and others. La Cour is known to the world for utilising wind power to generate electric current. The mill at Askov is built above a very interesting chemical laboratory, located in a grove of trees by itself. The mill furnishes current to light the entire school, a score or more buildings, besides supplying all the electricity required for experimental purposes. The chemical laboratory was primarily intended for advanced research work only; but, of late, two weeks' courses have been added for farmers and their hired men, and dairy employees, who are all obliged to understand the general principles of electricity, since this is coming more and more into use for lighting the farmsteads and running the dairies.

Askov has an historic grove for its great meetings, which, by the way, are no longer limited to the autumn time, but are held during spring and summer as well. This is *Skibelund Krat*, a small forest of gnarled oaks and other trees a few minutes' walk south of the school and overlooking the German frontier. This spot has been sacred ground for many years. Here the peasantry met to celebrate the signing of the liberal constitution of 1849; and here have the Danes south of the border met with their brothers annually since the war to renew their vows of steadfastness to a lost cause. Since the coming of Askov, Skibelund has become a veritable Mecca for the high-school folk. All kinds of popular meetings are held here. At or near the natural amphitheatre where the speaking is held are busts and monuments of folk leaders who have given their lives for a happier Denmark. Among the others can be seen a great memorial to Principal Ludvig Schröder and his wife, who died some six years ago. Perhaps the most striking thing at Skibelund is *Modersmaalet*, a group monument in the centre of which stands a woman of heroic size, gazing southward—"The Spirit of the Mother Tongue" —blessing her divided children.

Daily Programme, Askov Summer School for Women, 1913

Hour.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
8.0–9.0	Social science		Geography		Nature study	
9.0–10.0	Gymnastics					
10.0–11.0	Danish	Arithmetic	Danish	Arithmetic	Danish	Arithmetic
11.0–12.0	History of literature			General history		
	Noon intermission					
1.30–2.30	*a.* Drawing	Handwork	Drawing	Handwork	Drawing	Handwork
	b. Handwork	Drawing	Handwork	Drawing	Handwork	Drawing
2.30–3.0	Song practice					
3.25–4.25	Nature study		Sanitation		Elocution	Danish
4.30–5.45	Discussion		Sewing		Discussion	
6.0–7.0	Lecture					

Lectures Sunday afternoons at 5.30.

The themes discussed at these gatherings cover a wide range of knowledge. At first they were limited by the folk high school traditions to the "inspirational" lectures in history, literature, mythology, etc. With time the field has broadened until now every phase of ethics, politics, agriculture, sociology, and the like is freely discussed.

Daily Programme, Askov Winter School for Men, 1913

FIRST YEAR

<table>
<tr><th>Hour.</th><th>Monday.</th><th>Tuesday.</th><th>Wednesday.</th><th>Thursday.</th><th>Friday.</th><th>Saturday.</th></tr>
<tr><td>8.0–9.0</td><td>Discussion in mathematics</td><td>Discussion in history of the north</td><td colspan="2">Mathematics</td><td colspan="2">Hygiene and sanitation.</td></tr>
<tr><td>9.0–10.0</td><td colspan="6">Gymnastics</td></tr>
<tr><td>10.30-11.30</td><td colspan="2">Historical physics</td><td colspan="2">General history</td><td colspan="2">Natural science</td></tr>
<tr><td>11.30-12.30</td><td>Geography</td><td>Discussion in physics</td><td colspan="2">Geography</td><td colspan="2">Accounting</td></tr>
<tr><td>12.30–2.0</td><td colspan="2">Drawing</td><td>Discussion in general history</td><td>Drawing</td><td>Swimming</td><td>Discussion in general history</td></tr>
<tr><td>3.30–4.0</td><td colspan="6">Song practice</td></tr>
<tr><td>4.0–5.0</td><td colspan="2">Sociology</td><td>English or German</td><td colspan="2">Lectures</td><td>English or German</td></tr>
<tr><td>5.0–6.0</td><td>Danish</td><td>Danish</td><td>Discussion in natural science</td><td>Discussion in mathematics</td><td>Danish</td><td>Danish</td></tr>
<tr><td>6.0–7.0</td><td colspan="3">History of literature</td><td colspan="3">History of the north</td></tr>
</table>

VII. OTHER SCHOOLS

The Danish Agricultural School has been described as "the child of the Danish folk school." Danish country boys who have spent a winter or two at the folk high schools may later enter the local agricultural schools for a final study of technical agricultural subjects. About fifty per cent. of all the regular agricultural students have previously attended folk high schools. The union between the two kinds of schools is close. In some agricultural schools, indeed, it is required that students spend some time in the folk high schools. There is the same democratic spirit of government, with the dormitory form of school life, the emphasis on song and gymnastics, and the use of the lecture method wherever feasible. There are twenty-three government-aided agricultural schools, including three special agricultural schools for small-holding farmers. Three typical schools are: Lyngby in Zealand, Dalum in Fünen, and Ladelund in Jutland.

Daily Programme, Askov Winter School for Men, 1913

SECOND YEAR

<table>
<tr><th>Hour.</th><th>Monday.</th><th>Tuesday.</th><th>Wednesday.</th><th>Thursday.</th><th>Friday.</th><th>Saturday.</th></tr>
<tr><td>8.0–9.0</td><td colspan="2">Literature of all nations</td><td colspan="2">Advanced geography</td><td colspan="2">Applied mathematics</td></tr>
<tr><td>9.0–10.0</td><td colspan="6">Gymnastics</td></tr>
<tr><td>10.30-11.30</td><td colspan="2">Physics</td><td colspan="2">General history</td><td colspan="2">Natural science</td></tr>
<tr><td>11.30-12.30</td><td>Advanced algebra</td><td>English or German</td><td colspan="2">Advanced algebra</td><td></td><td>English or German</td></tr>
<tr><td>12.30–2.0</td><td>Discussion in general history</td><td colspan="3">Drawing and laboratory practice</td><td>Swimming</td><td></td></tr>
<tr><td>3.30.–4.0</td><td colspan="6">Song practice</td></tr>
<tr><td>4.0–5.0</td><td colspan="2">History of religions</td><td>Hygiene and sanitation</td><td colspan="2">Biology</td><td>Sociology</td></tr>
<tr><td>5.0–6.0</td><td>Discussion in history of the north</td><td>Danish</td><td>Discussion in general history</td><td>Danish</td><td>Danish</td><td>Danish</td></tr>
<tr><td>6.0–7.0</td><td colspan="3">History of literature</td><td colspan="3">History of the north</td></tr>
</table>

The Lyngby community comprises the Lyngby Agricultural School, Grundtvig's folk high school, a government experiment farm, an agricultural museum, and experimental fields and sales emporiums belonging to a co-operative association of local farmers.

Lyngby Agricultural School was organised in 1867 by Captain

J. C. la Cour and a local association of farmers. This was really an attempt to operate an agricultural school having as one of its integral parts a folk high school department. In 1890 the Grundtvig High School Association (organised to perpetuate the bishop's name in a folk high school) purchased the agricultural school and additional land. A group of new buildings was erected for Grundtvig's Folk High School, giving the school at the same time a separate administration. The present status is therefore this: one association of school men and farmers owns both schools, but these have separate principals and separate internal management. Yet they work in the greatest harmony, so far as to use a gymnasium in common, exchanging lecturers, and in other ways helping each other. The work, according to expert testimony, has been much more satisfactory to all concerned since the division into two schools.

Lyngby Agricultural School is a good illustration of the substantial smaller schools of agriculture. The school farm embraces some nineteen acres only, but Lyngby has the opportunity to make use of important investigations carried on by the government on its experiment farm mentioned above. The students may also draw much inspiration from Grundtvig's Folk High School and from study at the great Danish Agricultural Museum (Dansk Landbrugsmuseum) near by.

Lyngby offers two courses for young men—one of six months and one of nine. Prerequisites for admission are: (1) some familiarity with farm work, and (2) time spent at some folk high school. The six months' course is as follows:

Chemistry (inorganic and organic).
Physics.
Study of soils.
Treatment of soils (including meadow and moorlands; irrigation and draining).
Study of fertilisers.
Rotation of crops.
Plant culture.
Study of weeds.
Seed culture.
Plant diseases.
Domestic animals (their anatomy).
Breeding of domestic animals (cattle, horses, swine, and sheep).
Study of breeds and breeding.
Judging horses and cattle.
Diseases of domestic animals.
Feeding.
Horseshoeing and smithing.
Dairying.
Farm machinery.
Farm accounting.
Drawing.
Surveying and levelling.
Arithmetic.
Written themes.
Danish.
History of agriculture.
Study of how to overcome commercial faults in our domestic animals.

The nine months' course includes all of the above, but is more detailed. Lecture courses in sociology and economics with special reference to rural life are added. Some work is also offered for students who desire to become "control assistants," *i.e.*, local agricultural experts who offer advice in dairying, feeding, fertilisation of soils, etc.

The Dalum Agricultural and Dairy School has influenced agricultural Danish life in every corner of the kingdom.

Some 4267 students have completed its courses in the twenty-six years of its existence. Of these, 3198 have returned to the soil as scientific farmers, 652 have gone into the creameries, and 417 have become control assistants or agricultural experts whose business it is to advise the farmers and teach them better agriculture. The average winter attendance is about 200, while in summer only twenty-five of the most capable students are retained, who get the practical work of the farm by actually "doing it" under experts. This small group become heads of large farms, managers of dairies, bacon factories, etc.

Dalum offers courses of six months (November–April), nine months (November–July), three months (May–July), for agriculturists; a course of eight months (September–April) for dairymen; and a course of one month (October) for control assistants. The following is a description of the courses for agriculturists:

Courses for Agriculturists

The six months' course requirements for admission are: (1) Practical knowledge of farm work; (2) completion of a course in a folk high school; (3) applicant must generally be at least twenty years of age. The studies are as follows:

Chemistry.—Inorganic and organic—in relation to every-day life.

Physics.—Mechanics, heat, electricity, meteorology, etc.

Plant culture.—Structure, life, common diseases.

Drawing.—Geometrical, mechanical, etc.

Surveying.—Field work throughout the spring.

Danish.—Language, composition, themes.

Arithmetic.

Farm accounting.—Cash and bank accounts, fodder and milk accounting, field records, daily and annual settlements.

Gymnastics.

History of agriculture.—With special reference to Danish conditions.

Study of soils.

Dairying.—In addition to the regular course, a series of lectures of special interest to milk producers is offered, such as treatment of milk in the home, statistics on dairy management, etc.

Farm management.—Farm organisation, rotation of crops, use of banks and credit unions, land laws, communal laws, etc.

Farm machinery.—Study of farm implements, results of trials and experiments with common farm machinery, preservation and use of machines, etc.

Plant culture.—Preparation of soil, study of fertilisers, seeding, harvesting, history and culture of the most useful plants, weeds, plant diseases, seed culture, etc.

Domestic animals.—Anatomy; the horse, breeds and breeding; the cow, hog, sheep, etc., in similar manner; care of all domestic animals.

The nine months' course presupposes the completion of the above six months' course or its equivalent in some other school. The course includes all the studies enumerated in the six months' course in addition to three months of advanced work, with practical application in laboratory and experiment field, during May, June, and July.

The three months' course is a continuation course for old and advanced students. It is practical laboratory and field work chiefly. It covers the months of May, June, and July.

The course for dairymen covers the following subjects:

Chemistry, physics, machinery, bacteriology, domestic animals, dairying, farm accounting, bookkeeping, arithmetic, penmanship, and gymnastics.

Practical exercises :

1. Study of milk in the creamery; testing for fats, etc.
2. Bacteriological exercises; common bacteriological technique, microscopic cultures, etc.
3. Chemical analyses of a practical kind for the dairy, such as testing for purity, determining per cent. of water in butter, etc.
4. Chemical experiments in qualitative analysis dealing with the chief inorganic and organic substances.

The course for control assistants includes classwork and lectures on dairying, dairy accounting, feeding, soil tests, and fertilising, with practical work in milk weighing, testing for fats, etc.

The Ladelund Agricultural and Dairy School lies an hour's walk north-west of Askov. It embraces fifty or more acres of land, divided into home farms, experimental plots, forestry station, and school campus, the latter containing some forty buildings. The catalogue of the school describes its work as follows:

> Through the courses of instruction it is sought to give the students —who must be acquainted with the practical side of agriculture and dairying—such a foundation of knowledge as will enable them to attain a clearer insight into those things which they in practice must labour with, and hence also greater interest, greater returns, and greater joy in their work. This end is sought to be attained partly by giving the students knowledge of nature that surrounds them, of the forces that are at work and the laws that govern, and before which we must yield and regulate our daily work in field and barn and dairy, and partly by making known to the students the results of experimentation, of investigation, etc., in the field of agriculture and dairying—results on the basis of which we must shape our practical activities.[1]

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[1] Undervisningsplan for 1912.

The agricultural courses include a five months' course from November to March, a nine months' course from November to July, and a four months' continuation course from April to July. Emphasis is laid on practical field work. The course in dairying includes chemistry, physics, bacteriology, farm accounting, Danish, drawing, gymnastics, bookkeeping (for dairymen), dairy culture, history of agriculture, dairying, and rural economics, practical work in the bacteriological laboratory and school dairy.

There are three courses for control assistants—of six, three, and one month. These agricultural specialists devote their time to giving expert advice to the farmers of a given community and are paid partly by the community and partly by the state. Such experts may be found all over the land, testing milk for butter fat or the cows for tuberculosis. They make soil examinations and give advice as to what fertilisers to use, what rations to feed, etc. Their work has been especially effective among the older farmers who have not had the opportunities for study now at hand. Students taking control assistant courses have generally completed some agricultural course before matriculating in the new work. Here emphasis is laid on control accounting, milk testing, bacteriology, and the study of domestic animals.

Ladelund Agricultural School is equipped with remarkably strong bacteriological and chemical laboratories. The latter is used extensively to analyse milk, fertilisers, and feeding stuffs from the farmsteads far and near. The school owns a herd of thirty-five red Fünen cows, some of which have yielded 16,500 pounds of milk annually. This milk, together with the milk from many hundred red cows from adjoining farms, is manufactured into butter and prepared for the English markets at the co-operative creamery, which is a part of the school plant. This school creamery handled during the past year fully 1,000,000 kilograms of milk.

Among other schools that are significant in maintaining Denmark's agricultural prestige should be mentioned the Royal Veterinary and Agricultural Institute situated almost in the centre of Copenhagen. Unlike the agricultural schools just described, which are local schools intended to train practical farmers, the Royal Institute of Research offers advanced courses for the training of practical agriculturists, horticulturists, foresters, surveyors, veterinarians, and blacksmiths. The college dates from 1783. It was established first as a veterinary school and later enlarged to include its present departments. The number of students varies from 400 to 600, of whom about 200 are in the veterinary, 125 in the agricultural group, and the remaining fairly evenly divided between foresters and horticulturists. In normal times students attend the Royal Institute from many other European countries. The school forms the centre of all agricultural activity in the kingdom. It includes the laboratory for agricultural economic experiments and the serum laboratory, while the twenty-five national experts in agricultural economics have a more or less direct connection with the institute.

In addition to the schools described, three special schools have been established for the sons and daughters of small-hold farmers. There are 75,000 such farmers, each of whom attempts to make a living out of from two or three to seven acres of land. Two of these schools are described as follows:

Kaerehave School was founded in 1903, and during the first ten years of its existence instructed 5500 students, ranging in age from eighteen to seventy-five years. The school is the property of Principal Nielsen-Klodskov. A gift of 50,000 crowns from a local philanthropist and a state loan of 60,000 crowns made its foundation possible. Later other friends of the school have given liberally to place the school on a solid foundation. At this time the school property, including the large 125-acre experimental farm, is valued at half a million crowns nearly. The student capacity is 200.

Kaerehave has a land area divided about as follows: ten acres used for buildings, campus, parking, flowers, and shrubbery; three acres of beech and oak forest fashioned as an outdoor auditorium for summer meetings; seven acres divided into parcels and used variously for the breeding of chickens, rabbits, hogs, etc.; three acres planted to orchard for experimental purposes; two acres given over to experiments in vegetables and for a school kitchen-garden; four acres used exclusively for horticultural experiments; and, finally, ninety-six acres divided into interesting small-hold farms of six, twelve, eighteen, twenty, and forty acres, respectively—the latter as practical object-lessons in managing farms of different sizes.

In variety of courses the small-hold schools take first place. Kaerehave offers the following long and short courses:

During the winter session:

- Six months' agricultural course for young farmers.
- Six months' training course for country artisans.
- Six months' horticultural course for young gardeners.
- Six months' course in household economics for young women.

During the summer session:

Five months' course in household economics for young women.
Six months' continuation course for agriculturists.
Six months' course in horticulture for men.

Throughout the year.—Eighteen short courses of eleven working days each, for older men and women, residents of Zealand. New courses open on the first and third Tuesdays of each month except October.

The half-year courses are almost identical, so an outline of one may answer for both of them:

Hygiene and sanitation.—Anatomy of the human body, laws of health; home sanitation.
Gymnastics.—New Danish gymnastics.
Danish.—Reading, composition, and themes.
Accounting.—Common and applied arithmetic.
History.—History of civilisation, history of literature, church history, history of the north, geography, and sociology.
Song.—Folk and patriotic songs.
Physics.—Physics of every-day life.
Chemistry.—Chemistry of the household.
Housekeeping.—Preparation of foods: baking, butchering, practical kitchen work, drying and preserving fruit; pickling, etc.
Handwork.—Knitting, darning, patching, plain sewing, dressmaking, and embroidering.
House management.—Relation to domestics; treatment of clothing; the laundry.
Sick and child nursing.—Lectures and practical work.
Sloyd.—Basketry, patching shoes, work in pasteboard; bookbinding; making clothes brushes, etc.
Bookkeeping.—Practical household accounting.
Plant culture.—Structure, life, treatment, and improvement; kitchen plants, small and large fruit; windbreaks, seed culture, weeds.
Domestic animals.—Anatomy, life, management; special study of chickens, ducks, geese, rabbits, and bees.
Practical work.—Practical application in all the above, so far as possible.

The daily plan is about as follows:

Time devoted to field work.	Time devoted to instruction.	Time for meals.
5.0–6.25 a.m.	4.0–5.0 p.m.	6.30.–7.0 a.m., coffee.
7.0–10.25 a.m.	5.0–6.0 p.m.	10.30–11.0 a.m., breakfast.
11.0–2.30 p.m.	6.0–7.0 p.m.	2.30–3.0 p.m., dinner.
		7.30–8.0 p.m., supper.

The instruction embraces agriculture, plant culture, domestic animals, horticulture, and the auxiliaries of agriculture. Theory and practice go hand in hand. The students are divided into groups, each in charge of teachers and field managers. The practical work is done in the several experiment fields under the direction of the latter. During October the daily instruction is suspended, and all the time is devoted to work.

The students receive ten crowns a month during the first five months and fifty crowns during October, in addition to free tuition, board, and lodging. The work has proved remarkably satisfactory. A young man who applies his theories to the soil by the sweat of his brow is likely to get his agriculture about right. At least so it has proved at Kaerehave, which sends out annually a throng of practical and industrious young farmers who are well equipped for their life work.

Courses in household economics: the two courses for young women are thorough, and fit their students well to take charge of small farm homes where the greatest economy must be exercised to make ends meet.

Fünen Stifts School, near Odense.—This school, also known under the name of Odense Husmandsskole, was organised by the United Associations of Smallholders in the Island of Fünen in 1908. The institution is leased to the present principal for ten years, as the universal experience in Denmark has been that the success or failure of all these schools is closely bound up with the individuality of the one man at the head.

The purpose of the school may be stated from the school catalogue in these words:

> It is to give the students a good spiritual awakening and general guidance, and to offer them such knowledge of the professional subjects as shall enable them to take their place in the body politic and community as independent citizens, as farmers, in such ways that they may live economically independent lives, and make the most of their lot as smallholders. The purpose is, moreover, to give such knowledge and understanding of the auxiliary lines of agriculture that the smallholder may be enabled to keep his entire family together, each member to work at some specific avocation at home.

The instruction is similar to that of Kaerehave. It embraces long and short courses for young farmers, with special application to small holds; two courses for young women to aid them in their difficult rôle as helpmeets on these small farms; two courses for artisans—carpenters, masons, etc.—and two courses for control assistants.

Here, too, of greatest interest, are a number of short courses for men and women, young and old, living in the country. At this point the school is very close to the people. The investigator found at Odense middle-aged and old men and women mingling in classes with young men and women in their best years—the ages ranging from twenty-five to seventy-five—but all with life problems to solve. Some come to get new insight into potato culture, others make a two weeks' study of soil from their own land, or others again take up bee culture, rabbit breeding, or chicken raising. And they all gain enough stored-up inspiration to tide them over the hard places of the future.

Of special interest are the eleven-day courses for mature men and women. Any person who is able to profit by such a course is eligible to aid from a special appropriation. The total cost of the course is thirty kroner and the amount of the aid is usually enough to cover this and other expenses, such as railroad fare to and from the school.

One other group of schools deserves mention. There are seventeen rural schools of household economics, twelve of which are sufficiently established to be recognised by the state.

All the folk high schools offer summer courses for young women, especially of the inspirational order, and several thousand students attend annually. Classwork in sewing and needlework, lectures on sanitation and other important themes are included in these summer courses, but these have never been considered sufficient preparation for the responsibilities of housekeeping. It is an old custom in Denmark to send the young women, as soon as betrothed, to some large country home—the manse or the home of a country squire—to take a year's work in practical housekeeping. This has unquestionably furnished excellent training for Danish housewives, but even the best homes are not expected to know many of the latest things which science is thrusting upon the schools, which schools alone can supply. With the demand for agricultural schools where to train scientific young farmers came a natural insistence that the helpmeets of these young men should be afforded equal opportunities; hence the rural schools of household economics.

The schools are built in the open country or on the outskirts of some rural village. They usually have land enough—three to five acres—to furnish vegetables, milk, and butter for school consumption. A first-class vegetable and fruit garden is used as a laboratory where the young women do much individual work. The flower garden, too, receives its share of attention.

The young women are expected to reside at the school during their continuance there. The courses are usually six months in length. This enables the schools—which often run the entire year—to train two separate groups of students each year. The buildings are equipped with model kitchen, dining-room, living-room, and bedrooms, all of them intended as models for practical farm homes.

Some idea of the scope and thoroughness of the schools may be obtained from the following brief description of one such school—Haraldsborg, near Roskilde.

Haraldsborg School of Household Economics.—[1]This school lies on a beautiful ridge of hills overlooking Roskilde Fjord, about twenty minutes' walk from the railway station. The house-mother, Fru Anna Bransager-Nielsen, limits the number of resident students to thirty-five, who are treated as members of the family. These are grouped for convenience into five families of seven each. Three families had charge of the model kitchen, one family was occupied in the living-rooms and bedrooms, and the remaining family was hard at work in the dressmaking room.

The school was a marvel of neatness. What seemed most valuable in this system of preparation was not so much what the young women learned to do, as the right habits of life inculcated with the work of the day.

Haraldsborg is large enough to produce the vegetables, milk, meats, etc., consumed at the school. Four acres are devoted to lawn and flowers, and ten acres to the farm, which keeps a span of horses, a couple of cows, and some pigs.

The course of study includes the following subjects:

Natural science.—Chemistry and physics, with special reference to the household.

Housekeeping.—Preparation of foods; food values, theory of household economics; household accounting; baking; butchering; curing meats; pickling; cleaning house; dining-room work; washing; ironing.

Handwork.—Plain sewing; dressmaking; patching; darning; fine needlework and embroidery.

Sanitation.—Study of human anatomy; laws of health; home sanitation.

Garden culture.—Care of kitchen, fruit, and flower gardens; preparing vegetables and fruit for keeping and winter use.

Other subjects.—Song, gymnastics, literature, rural sociology, and reviews in any of the elementary subjects wherein the students may prove deficient.

Because of the limitations of space, little has been said about the secondary schools or the National University at Copenhagen. Denmark's contribution to education and politics largely lies in the satisfactory solution of her rural problem, so the writer offers no apology for giving this aspect of affairs the main portion of time and space in the foregoing narrative.

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INDEX

UNITED STATES

Administrative area, 1
Attendance, 24, 60; compulsory, 26
Bibliography, 104
Carnegie Foundation, 101
Centralisation, 104
Child labour, 8
Courses, secondary—
  Agricultural, 88; commercial, 82, 86; continuation, 83; general, 81; home economics, 87; industrial, 85; mechanical, 89; vocational, 82
Curriculum, uniform, 77
Education—
  Continuation work, 83
  Control, city, 22; local, 18; national, 20; state, 11
  Democratic and free, 9
  Development, 7
  Differentiated, 79
  Diversity of, 1, 103
  Elementary—
   Cost, 37; general description, 24; schools, 29; studies, 29; teachers, 39; terms, 25; time, 36
  English basis, 6
  Equalisation tendencies, 74
  Inequalities of, 75
  Labour influence on, 9
  Organisation of, 10
  Science of, 99
  Secondary—
   Attendance, 60; cost, 68; schools, 58; students, 61; studies, 63
  Theory of, 74
  Vocational, 76, 89
Elective system, 65, 79
Enrolment, 12
Equality of opportunity, 75
Finance, 100
Foundations, private, 101
Free education, 10; lunches, 92; textbooks, 92
General Education Board, 101
Health, 93
"Institutes," teachers', 58
Laws, state, 13
Medical inspection, 93
Mothers' pensions, 93
Negroes, 92, 98, 102
Occupational data, 61
Peabody Education Board, 101
Popularity of studies, 68
Principals, 51, 72
Programmes, typical—
  Consolidated school, 34; one-room school, 30; secondary school, 64
Russell Sage Foundation, 101
School survey, 99
Schools—
  Blind, 96; city, 36; cripples, 95; deaf, 96; distribution of, 94; evening, 82; feeble-minded, 96; junior high, 81; negroes, 98; normal, 52; one-room, 29; prevocational, 90; rural consolidated, 32; secondary or high, 58; special, 84, 95; speech defectives, 96; truants and incorrigibles, 97; Williamson Trades, 88
Teachers, elementary—
  Certification of, 39; salaries, 50; sex, 51; tenure, 51; tests for, 45; training of, 47, 52
Teachers, secondary—
  Certification, 68; experience, 72; salaries, 71; tenure, 72; training, 73
Tests, standard, 100
Time data, 24, 36, 54, 64
Vocational education, 76; guidance, 89

GERMANY

Adaptation, 163
Aims, 112, 123, 124, 130, 154
Arithmetic, 129
Attendance, compulsory, 125, 126
Authority, reverence for, 123, 125
Bibliography, 180
Bismarck, policy of, 108, 121
Business knowledge, 172
Continuation schools—
  Attendance, 166, 167; girls', 178; history, 165; Munich system, 167; organisation, 170
Education—
  Administrative bodies, 114
  Clerical influence, 107, 108, 113, 118, 121, 123

Commercial, 173
Control, state, 113
Cost distribution, 120
Elementary—
  Attendance, 125; co-education, 125; curriculum, 125, 128; enrolment, 125; history, 122; limited by statecraft, 122; method, 129; schools, 125, 128; success due to organisation, 125; threefold aim, 124; time table, 128; uniformity, 124
Industrial, 170
Inspection, 119
Maintenance, 119
Ministry of, 113
Secondary—
  Aim, 142; control, 144; definition, 149; exclusiveness, 145; fees, 148; girls', 159; history, 142; maintenance, 148; privileges, 152; programmes, 149; reforms, 146; scholarships, 148; types, 148
Vocational, 163, 178
Evening attendance, unsound, 166
Girls, schools for, 159, 178; vocational training for, 179
Ideals in practice, 130
Individuality discouraged, 130, 154
Kaiser on classicalism, 143
Language-teaching, 152
" Life information," 179
Meals, free, 128
Medical inspection, 127
Military service, 136, 137, 152
Modernism *v.* Classicalism, 142
Organisation, 125, 154, 163
Patriotism, an aim of education, 124
Physical training, 155
Police administration, 126
Prussia, predominant, 107
Schools—
  Commercial, 173; continuation, 165, 178; elementary, 125; industrial, 171; intermediate, 140; normal, 132, 133; preparatory, 132; secondary, 142: secondary girls', 159; technical, 171; vocational, 163
State supremacy, 107
Teacher as " oral text," 129
Teachers, elementary—
  Associations of, 139; examinations, 136, 139; limited but efficient, 137; military service, 136, 137; number in Prussia, 131; pensions, etc., 130, 138; salaries, 138; sexes, 131; status, 130, 137; tenure, 130, 138; training courses, 132
Teachers, secondary—
  Salaries, etc., 158; status and training, 155; women, 162
Teachers, vocational, 175
Technical training, 172
Women teachers, 131, 162

ENGLAND

AREAS, 191, 239
Attendance, 201, 215, 251, 283
Bibliography, 284
" Blind alley " problem, 218
Bureaucracy, dislike of, 192, 195
Bursar-student-teacher, 227
Child labour, 216, 283
Clinics, 237, 241
Cockerton judgment, 219
Consultative committee, 193
Deafness, percentage, 241
Defects, percentages, 241
Education—
  Act (1918), 282
  Board of, 189
  Continued, 248, 283
  Control, 188, 195
  Elementary—
    Buildings, etc., 205; class division, 202; classes, 210; curricula, 206; finance, 221, 284; games, 208; grading, 208; organisation, 204; quality, 207; scholarships, 208, 210; schools, 203; vocational guidance, 217
  Intermediate, 219
  Local authorities, 197, 199, 282; committees, 197; managers, 198; officers, 200; organisation, 201; units, 196
  Minister of, 190
  Secondary—
    Age, 219, 265; attendance, 260; curricula, 267–272; examinations, 275; fees, 258, 273, 274; finance, 273; free places, 273; ideals, 255; organisation, 256, 265, 266; scholarships, 256, 273; school life, 273; schools, 257; social differences, 255, 258; specialisation, 265–272
  Technical, 252, 253, 254
  Vocational, 251, 253, 254
Employers, duty of, 251, 283
Employment committees, 218; registries, 250
English traits, 185
Evening schools, 248
Examination-ridden schools, 275
Examiners, 190
Eyesight, 241
Feeble-minded, 245
Fresh air, 236, 241
Games, 256
Geographical factors, 183
" Good form," 255
Grants-in-aid, 189, 222, 274, 283, 284
Half-timers, 216, 283
Health, " compulsory," 236, 283
Hearing, 241

Inspectors, 190
Lecturers, 230
Liberty, individual, 184, 282
Manners and habits, 244
Meals, provided, 202, 237, 240
Medical inspection, 202, 236, 238, 283; officers, 239
Mediocrity neglected, 256
Mental Deficiency Act, 245-6
Monitorial system, 225
Mothers, schools for, 237
Nurseries, day, 237
Overlapping, 236, 239
Provided and non-provided schools, 203
Pupil-teacherships, 225
Reforms, suggested, 210, 213, 215, 217, 224, 251, 282
Registration of teachers, 279
Religious controversy, 198, 202, 204
Salaries at secondary schools, 258, 263
Schools—
  Agricultural, 188; architecture of, 206, 242; army, 188; blind, 203, 247; central, 220; continuation, 248, 283; deaf, 203, 247; defectives, 243; demonstration, 233; divisions of, 191; efficient, 203; elementary, 203; epileptic, 203, 243; evening, 248; girls' high, 257, 259; grammar, 257, 258; grants to, 195; higher elementary, 203, 219; industrial, 188, 247; intermediate, 219; junior technical, 253; mental defectives, 203, 244, 246; mothers, 237; municipal, 257, 259; navy, 188; normal (training college), 228, 277; number of, 194; nursery, 283; open-air, 241; poor-law, 188; preparatory, 260; private secondary, 260; provided, 203; public, 257; reformatory, 188, 247; secondary, 189, 256; ventilation of, 206; voluntary, 203
Spanish, 220
Special Inquiries Department, 193
Subnormal children, 237
Teachers, elementary—
  Appointments, 212; bursars, 227, 228; certification, 211, 234; freedom of, 187, 206; insularity of, 207; pensions, 213; practice-teaching, 233; pupil-teachers, 225, 227; salaries, 212; sexes, 211; student-teachers, 227, 228; supplementary, 211; tenure, 212; training, 225; training colleges, 228; training courses, 231, 233
Teachers' Registration Council, 281
Teachers, secondary—
  Pensions scheme, 264; qualifications, 262; registration, 277, 279; research facilities, 284; salaries, 258, 262, 263; training, 276
Teeth, 241
Training colleges, 228
Tuberculosis, 241
Welfare work, 235
" Whiskey money," 273
Workers' Educational Association, 254

FRANCE

BIBLIOGRAPHY, 342
Boy Scout movement, 340
Clarity and grace, 385
Classics as humanities, 301
Collège Royal, 287
Education—
  Adult schools and classes, 336
  Elementary—
    Attendance, 321; buildings, 321; central authority, 313; development, 313; discipline, 322; examinations, 323; finance, 316; hours, 322; local authorities, 314; method, 322; organisation, 321; primary inspectors, 315; studies, 323
  Higher primary—
    After-school careers, 327; curriculum, 325; development, 324; examinations, 326; overwork, 327; scholarships, 326
  History reflected by, 286
  Lectures, etc., 337
  Libraries, 337
  Secondary—
    Academies, 291; administrators, 295; bachelor's degree, 304; classes of boys, 294, 297; control, state, 290; cost, 303; curricula, 300; inspectors, academy, 291: general, 293; language teaching, 301; merits and defects, 305; military discipline, 290; numbers in schools, 302; organisation, 289; physical exercise, 302; scholarships, 304; school buildings, 293: life, 294; studies, 302; superior council, 292; supervisors, 295
  Secondary, for girls—
    Atmosphere, 332, 333; courses and diplomas, 331; development, 330; teaching force, 332
  Societies, educational, 337
  Technical and commercial, 333
  University—
    Degrees, 310; fees, 310; history, 307; hours and terms, 309; ideals, 311; organisation, 308; professors, 308
French, teaching of, 301, 306
Games, 295
Headmasters, 295
Jesuit colleges, 288

- Kitchen, the school, 320
- Meals, free, 320
- Military spirit, 290, 309, 322
- Napoleon, educational reformer, 289
- Petites Écoles of Port Royal, 288
- Prison routine of the lycée, 294
- Professeurs-adjoints, 296
- Répétiteurs, 296
- Revolution, a bridging period, 288
- Schools—
  - Adult, 336; central, 289; colleges, 293; écoles manuelles, 324; elementary (primary), 313; girls' secondary, 331; higher primary, 324: technical, 333; infant, 320; Jesuit, 288; lycées, 293; middle technical, 334; normal, 318; Port Royal, 288; primary normal, 328: technical, 334; private, 289; secondary, 289; special, 312
- Teachers, elementary—
  - Examinations, 330; pensions, 319; salaries, 318, 324; sexes, 317; tenure, 320; training, 318, 328: advanced, 330: practical, 329
- Teachers, secondary—
  - Examinations, 297, 298; grades, 297; pensions, 299; salaries, 298; specialism, 299; status, 299; training, 298
- Universities and colleges, 287
- University of France, 289, 307; of Paris, 286
- War hastens reforms, 338

CANADA

- ADOLESCENTS, 428, 429
- Age factor, 402
- American influence, 348
- Apprentice schools, 425, 427
- Areas, 353-7
- Arithmetic, old university subject, 417
- Art, 432
- Attendance, 360, 428, 429
- Auxiliary classes, 432
- Bibliography, 436
- Bi-lingualism, 347, 364, 377, 397
- Censuses, school, 363
- Centralisation, 347, 434
- Civics, 364
- Defectives, figures of, 431
- Devolution necessary, 434
- Education, agricultural—
  - Agricultural Instruction Act, 420; colleges, 421; experimental farms, 423; finance, 421, 424; results, 423
- Education—
  - Central authorities, 350
  - Commercial, 427
  - Control, 348, 435
  - Elementary—
    - Attendance, 360; bi-lingualism, 377; buildings, 368; conservatism of, 367; courses, 364; democratic, 357; equipment, 369; examinations, 374; finance, 380; free, 358; grades, 359; grants, 382; medical inspection, 379; reforms, coming, 435; rural and urban, 376; separatism, 356, 357; text-books, 370; thoroughness, 368; time data, 367; truant officers, 363; uniformity, 364, 365
  - Local authorities, 353
  - Provincial authorities, 351
  - Secondary—
    - Age problem, 402; courses, 405; entrance requirements, 405; examinations, 409; finance, 410; inspection, 410; reforms overdue, 435; schools, types of, 403; text-books, 409; uniformity, 417
  - Superintendent of, 351, 352, 353
  - Technical, 425
  - Vocational—
    - Agriculture, 420; apprentice schools, 427; attendance, 428; definition, 417; general or special? 417; household science, 424; Macdonald movement, 418, 419, 420; manual training, 418; problems, 428; procedure, 429; school gardens, 419
- English, teaching of, 379
- Examination-ridden schools, 409
- Examinations, chance element in, 373
- Fair, the school, 420
- Farmers' wives, courses for, 420
- Federal control, 349, 350, 435
- Feeble-mindedness, menace of, 431
- Formal discipline theory, 367
- French language difficulty, 377
- Gardens, school, 419
- Household science, 424
- Indians, 349, 433
- Immigrants, undesirable, 431
- Immigration and new schools, 347
- Language capacity and age, 403
- Macdonald Rural Schools movement, 418–420
- Manure discovery, 423
- Marks for worthless work, 373
- Medical inspection, 379
- Mennonites, 346, 378
- Mixture of races, 344
- Newness of the country, 346, 347
- Pioneer conditions, 347, 366, 434
- Police and attendance, 363
- Practical education, 366
- Protestants, 346, 352
- Publications, government, 349
- Religious adjustments, 346, 358
- Rhodes scholarships, 348, 433

Roman Catholics, 346, 352, 355, 360
Rural depopulation, 375, 376; problem, 347
Salaries, low, effect of, 375, 391
Schools—
  Agricultural, 366; apprentice, 425, 427; art, 432; blind, 431; collegiate, 404; commercial, 366, 425; common, 358; consolidated, 376; continuation, 404; deaf, 431; differentiated, 366; elementary (public), 348, 356, 357, 358, 435; forest, 431; high, 357, 403; household science, 366, 424; Indian, 349, 433; kindergarten, 359; model, 397; names of, 357; night high, 404, 425; normal, 398; physical training, 366; private, 358; rural, 359, 375, 419; secondary, 356, 357, 403, 435; separate, 358; summer, 402
Seed improvement course, 418
Soldiers, returned and wounded, 349
Specified text-books and supplies, 370
Teachers, elementary—
  Age, minimum, 388; certificates, 387, 389, 400; classification, 386; class strata, 398; diplomas, 389; experience, 391; pensions, 393; permit, 386; qualification distribution, 391, 394; qualifications, 388; requirements for training, 398; salaries, 375, 390; sexes, 389; training, 397, 401; training courses, 398
Teachers, secondary—
  Courses, 413; examinations, 413; qualifications, 412; salaries, 413; tenure, etc., 415; training, 412
Text-books *de luxe*, 370; protection of, 372; state-made, 371
"Three R's," emphasis on, 364, 366, 367
Travel for teachers, 434
Trust in the people, 434
Uniformity, reasons for, 365
Vocational studies defined, 417
War problems, 349
Wheat, improved, 423

DENMARK

ADMINISTRATION, 444, 447
Agricultural courses, 485, 486
Bibliography, 494
Dairymen, courses for, 487
Education, agricultural—
  Courses, typical, 485, 486, 487, 490; dairy schools, 486; laboratories, 488; schools, 439, 451, 483; short courses, 491
Education, appreciation of, 452
Education, elementary—
  Attendance, 452; class organisation, 456; course of study, 456; finance, 448; methods, 459; national system, 442; post-reformation, 441; records, 453; school year, 453; subjects, 457; time division, 454; truants, 453; uniform during first five years, 443
Education, general plan of, 443, 445
  Historical development, 439
  Rural—
    Attendance, compulsory, 450; continuation and other schools, 451; effects, economic and social, 451-2
Folk high schools—
  Attendance figures, 465, 466; cost, 467; definition, 461; democratic, 467; development, 463; gymnastics, 470; historical background, 469; ideals, 460, 461; influence on agriculture, 460; method of teaching, 469; organisation, 463; origin, 460, 462; professional studies, 470; programmes, 482, 483, 484; school life, 469, 470-2; song, 470; state aid, 466, 468; teachers, 464; time division, 477, 478; typical schools, 472; women, summer courses for, 482, 492
Grundtvig, Bishop, 460
Home training, old Norse, 440
Household economics course, 493
Housewives' training, 492
Interest, element of, 469
Kold, Kristen, 462
National welfare and education, 439
Peasantry, educated, 451
Problems solved by education, 439
Royal Institute of Research, 488
Schools—
  Agricultural, 439, 451, 483; burgher, 440; cathedral, 440; continuation, 451; dairy, 486; elementary, 452; folk high, 439, 444, 451, 452, 459, 472; free, 441, 452; household economics, 439, 451, 452, 492, 493; Latin, 441, 443, 460; middle, 444; monastic, 440; night, 451; normal, 442; public, 442; real, or gymnasia, 443; rural, 439, 451; secondary, 493; smallholders', 439, 452, 489; teacher-training, 442; women's, 443
Smallholders, courses for, 489, 490
Teachers, elementary—
  Associations, 443; permanent fund, 449; status, 452; tenure, 452; training, 442
War as spur to education, 463

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